THE CULTIVATOR.

NEW "TO IMPROVE THE SOIL AND THE MIND." SERIES.

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THE CULTIVATOR

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THE CULTIVATOR.

TO CORRESPONDENTS.

COMMUNICATIONS have been received since our last, from C. D., B. P. Learned, S. Weller, P—, J. P. Norton, D. G. Mitchell, A Lady, Solon Robinson, W. Orcum, Agricolaris, Yarrow, A. S. of Oakwood Farm, Amherst, S. B. Buckley, S. W. Jewett, B., S., Charles Colfelt, Dairyman Farmer, A Country Typo. H. W. S. C., Indicator, A Laboring Man, A Subscriber, C. Osborne, P. Smith, Jr., Fishkill Landing, S. Camp, A Subscriber, D. S. Curtis, G. N. Blakeslee, H. A. Parsons, Gibson & Ritchie, A. C. Stevenson, M. Adams.

We are under obligations to the American Institute, New-York, for a handsome pamphlet copy of the "Proceedings of the National Convention of Farmers and Gardeners held at the American Institute," in Oct. last—To J. R. BAILEY, New-York, for the "Leicester Journal," containing very full accounts of the anniversary meetings of the Rutland and Leicestershire (England) Ag. Societies—To Hon. H. L. ELLSWORTH, Com. Patents, for two packages of various kinds of seeds—To Hon. WM. L. GOGGIN, M. C., for his Address before the New London (Va.) Ag. Society—To J. W. LINCOLN, Esq. for the Transactions of the Worcester County, (Mass.) Ag. Society for 1844—To R. R. PHELPS, Esq. for the Transactions of the Hartford Co. (Ct.) Ag. Society for 1844—To LORENZO BULL, for a copy of the beautiful Diploma of the Hartford Co. Ag. Society, and for copies of the Transactions of the same Society for 1842 and 1843—To HENRY WATSON, for a copy of the same—To Hon. LEVI WOODBURY, U. S. Senate, for his Address before the National Institute at Washington, on the 15th of last month. To ARTEMAS HALE, Bridgewater, for Reports of the Plymouth Co. Ag. Society—To E. H. PEASE, bookseller, of this city, for copies of Johnston's Agricultural Catechism—To F. DWIGHT, for a copy of his Report on the Common Schools of Albany County.

CRITICISM.—The criticism of "Amherst" is received. It is certainly much to the point, but we would remark that many who send articles for the Cultivator, are not practiced writers. *Facts*, of the most valuable kind, are frequently communicated in a style not the most laconic or beautiful. Justice, however, compels us to say that we have found the objections of our correspondent in regard to "redundant expressions," and "circuitous style," not generally more applicable to those who write but little, than to those who write much. The hints of Amherst, are nevertheless good, and we will endeavor to profit by them.

☞ Several communications in type for this month, are crowded out to make room for the Prize List of the State Agricultural Society.

Mr. HATHAWAY, Rome, will have seen that the extract he sent us was noticed in our last number, p. 71.

J. H., *Guelph.*—The 'Northern Light,' has been discontinued. What shall we do with the $2 ?—Shall we advertise the stock you wish to dispose of ?

J. P.—Your request shall be attended to, and the necessary preparations made in due season.

MONTHLY NOTICES.

NEW-YORK STATE AGRICULTURAL SOCIETY.—The Executive Committee met on the 13th and 15th February, and completed the premium list, &c., which will be found in another part of this number. The next show, it will be borne in mind, will take place at UTICA, on the 16th, 17th and 18th days of September next. We would call particular attention to the premium list, which in some respects, we think, is improved on that of former years. The central position of Utica is certainly favorable to a wide competition in all the departments, and we are confident the people of that thriving city will omit nothing on their part to make the show in all respects worthy of our great state. Come on, then, farmers, and give us the opportunity of comparing the products of your farms at this grand *rural jubilee*.

AGRICULTURAL LECTURER.—We are pleased to inform the public that the Executive Committee of the New-York State Agricultural Society have made an arrangements with the Corresponding Secretary, Dr. D. LEE, to make a tour through various portions of the state, for the purpose of collecting useful information, and giving occasional lectures on agricultural subjects. We have no doubt his visits will be received by the farmers with warm approbation, and that due notice only will be required to insure the attendance of large audiences to hear his lectures. Dr. Lee is at present a member of the Assembly, and during the session may be addressed here on any matters pertaining to his proposed tour.

THE CULTIVATOR FOR PREMIUMS.—We have recently received orders from the following Societies for The Cultivator to be distributed as Premiums:

Orange Co. Ag. Society, N. Y.,	7	copies.
Chautauque Co. Ag. Society, N. Y.	17	"
Miami Co. Ag. Society, Ohio,	10	"
Ohio and Brooke Counties Society, Va.,	15	"
Coshocton Ag. Society, Ohio,	7	"
Herkimer Co. Ag. Society, N. Y.,	36	"
Cortland Co. Ag. Society, "	31	"
Seneca Co. Ag. Society, "	25	"

We would suggest to the Managers of County Ag. Societies, who will soon convene to make out their Premi

'm Lists for the present year, whether they could in any way better promote their objects, than by including in their premium lists 25 to 40 copies of The Cultivator.

LIBERAL SUBSCRIPTIONS.—Hon. J. J. MCKAY, M. C. from North-Carolina, has renewed his subscription for *one hundred* copies of "The Cultivator," for gratuitous circulation among his constituents. JAMES SLOAN, Esq. of the same state, is also a subscriber for *one hundred* copies.

SOLON ROBINSON.—We give this month, the first of a series of Letters from this veteran, from the South and South West, which we doubt not will be read with interest in all sections of the country. This letter was intended for our Feb. number, but did not reach us in season. We have a second letter, dated at Glenfinlas, Missouri, 26th Jan., which will appear in our next.

SUFFOLK PIGS.—In our notice of the Massachusetts State show at Worcester, last fall, we spoke of some Suffolk swine, imported by Mr. WILLIAM STICKNEY, of Boston. In a letter lately received from Mr. S., he informs us that they have proved to be a very valuable variety. Some of the half bloods, killed the past winter, at the age of ten to eleven months, weighed 300 to 375 lbs. each. We notice a letter of Col. JAQUES in the Massachusetts Plowman, in which he thus speaks of the Suffolk pigs: "They are of good promise, and if judiciously crossed with some of our varieties, may make great improvements."

HOPS.—There were inspected in this city during the last year, by WILLIAM ARMSDELL, inspector, 1050 bales of hops. These were raised, principally, we are informed, in the counties of Otsego, Oneida and Madison, in this State. They are said to have been well matured on the vine, of rich flavor, and well secured, being of a quality that would generally pass for first sort. Gurdon Avery and Charles D. Palmer of Oneida, Solomon Root of Madison, Gilbert Conrad and William Hinds of Otsego county, are mentioned as having produced a superior article.

CARROTS.—In our notice of Mr. Newhall's farm in the Jan. No., we spoke of the culture of carrots, and stated that the crop we saw growing in October would probably amount to eight or ten hundred bushels per acre. By a note of Mr. Newhall's in the New-England Farmer, Jan. 29, we learn that the crop was carefully measured, at harvesting, and was found to be 880 bushels per acre.

CORRECTION.—In our notice of Mr. Newhall's soiling system, we mentioned that rye, which was the first thing cut in the spring, lasted till corn, sown or planted for fodder, would answer to cut and feed. In his note to the N. E. Farmer, Mr. N. states that we were under a slight mistake. There is usually a short time after the time for using rye is passed, that he feeds with green clover, before the corn is used.

EARLY CORN.—Extract of a letter from B. BREWSTER, Esq. Montreal.—"Should an opportunity offer, I shall send you a few ears of Indian corn, similar to your Dutton, but much earlier. Time, the past year, 94 days from planting to harvesting—produce 96 bushels to the acre." We shall be greatly obliged, if Mr. B. will send us half a bushel or bushel of ears, by express, and charge expenses to our account.

☞ The *Germantown Telegraph* of Jan. 29, copies an article of two and a half columns from the Cultivator, and invites the attention of its readers to it, without informing them from whence it was copied. It appears, in fact, as original in the Telegraph, and will probably be copied from that paper and credited to it, as several of our articles have heretofore been, which appeared in that paper leaded, without credit. The Telegraph will understand why the exchange is discontinued.

SAMPLES OF WOOL.—A. C. Stevenson, Esq. Green Castle, Ia. says—"I would like to have samples of wool from a few of the best fine wooled flocks in your vicinity, and if any of your sheep growers will send me samples and prices, I will take some pains to exhibit them."

AGRICULTURE IN NEW-BRUNSWICK.—By the St. Andrews Standard, we have the twenty-fifth report of the Charlotte County Agricultural Society, with the list of officers, &c. for the present year. It appears that this society has rendered important benefits by the introduction of seeds, implements, and stock of various kinds; and the report informs us that a commendable spirit of improvement is observable in the various departments of agriculture. We rejoice in their progress.

MOUNT HOPE.—The editor of the *Troy Whig*, in noticing the February number of the Cultivator, and its beautiful view of "Mount Hope," after alluding to the proprietor as "among the most distinguished breeders of Durham cattle in the United States," says: "Mr. PRENTICE is moreover a liberal patron of the fine arts. In the hall of his mansion at Mount Hope are the four marble statues of the Seasons executed for Mr. Prentice by Henry Kirke Brown, the young American sculptor now in Italy, and several marble busts by the same artist. It is by the liberality of Mr. Prentice that Mr. Brownes is enabled to prosecute the study of his profession abroad."

POTATOE ROT.—An exchange paper suggests that the rot in potatoes may be "occasioned by the worm that destroys cucumber vines." We have seen no satisfactory evidence that this trouble is caused by *any* insect. The most minute examinations have failed to trace the rot to animal life in any form.

SOUTH CAROLINA WINE.—The Savannah Republican states that Dr. Sidney Smith, of Robertsville, S. C., has lately exhibited eight samples of wine made from the pure juice of the grape. Dr. Smith has 800 gallons of these wines, which are pronounced excellent, particularly for all medicinal and culinary purposes.

POTATOES IN HILLS AND IN DRILLS.—The Plymouth co. (Mass.) Ag. Society paid premiums last year for experiments to ascertain the best mode of planting potatoes. The following are some of the results:

	In hills.	In drills.	
P. Bassett, of Bridgewater raised	363	425	bu. per acre.
Paul Hathaway, Middleboro', -	331	396	"
B. Hobart, - - - - - - - -	270	310	"

Neither the relative quantities of seed, nor the difference in the expense of cultivation for each mode, are mentioned.

FOUNTAINS.

FEW things add more to the beauty and interest of gardens, than a diversity in the play of water. In hot, sultry weather, especially, it contributes to cool the air, as well as enliven the prospect. Water spouting from an ajutage, never attains entirely the height of the reservoir, being prevented by various concurring causes:—1st, friction in the tubes; 2d, friction against the circumference of the aperture; 3d, the resistance of the air; its weight obstructs the rising column. Thus the Emperor Fountain, lately erected at Chatsworth, with a fall of 381 feet, only raised a jet 267 feet in height. The above causes account for the loss; as all are aware if a pipe were laid to a corresponding height, the column of water would then rise to the height of the place from whence it was supplied. In order to make large jets rise higher than small ones, the conduit pipe must be large enough to furnish a sufficient quantity of water to supply them. History informs us that the ancients were far before us in this delightful ornament. Greek cities were adorned by them; in Corinth, there were several; in Rome, Frontenus was employed in erecting fountains; Pompeii had many, some of which remain to this day. The fountain of Trevi, and the Pauline fountain at San Pietro, in Montono, are immense piles of architecture. The London Gardener's Chronicle, from which we have condensed the above remarks, gives the following table in reference to some of the principal fountains in Europe. The same paper also mentions an improved hydraulic ram, used by Mr. Roe, in which water can be raised with a fall of ten feet, to the height of 300 feet without labor.

The Emperor Fountain at Chatsworth, height of jet,	267 ft.
Wilhemhœhe Fountain, in Hesse Cassel,	190
Fountain St. Cloud,	160
Peterhoff, Russia,	120
Old Chatsworth,	94
Versailles,	90

TEN HILLS FARM.

THIS farm, the residence of Col. SAMUEL JAQUES, is in Charlestown, about three miles from Boston. The location is one of the finest in the country. The Mystic river, which is here navigable for vessels of the largest class, forms the northern boundary, and the Middlesex canal and Medford turnpike pass through its center. From a kind of promontory which embraces the northern part of the farm, and around which the Mystic makes a graceful curve, there rises, with gentle acclivity, a hill from whose top is presented a landscape view of most exquisite beauty and interest. Here, at once before the eye, is Charlestown, with Bunker Hill and its towering monument—a little beyond, is the city of Boston, with its harbor and shipping, and the bay, with its numerous green islands—scattered around, are the many handsome towns and villages which constitute the suburbs of the New-England metropolis; the highly cultivated country, with all its varied features of hill and dale, forest and field, filling up the picture to the horizon on every side. But no description can do full justice to the diversified beauty of the scene.

Contiguous to this farm is Mount Benedict, on which stood the Ursuline convent which was burnt by a mob on the 11th August, 1834. The blackened and crumbling walls, with a scattered remnant of trees and shrubbery, are all that now remain of the objects which once adorned this memorable spot.

Many interesting reminiscences are associated with TEN HILLS. The first vessel constructed in Massachusetts, called "*The Blessing of the Bay*," was built *here* in 1631, and a part of the wharf at which she was moored, is still to be seen! The first house here, was built by an English gentleman, in 16—, and a door, which is believed to have belonged to this house, now constitutes one of the hall-doors of the present mansion! The latter was built by the late Gen. E. Haskett Derby, who resided here for several years.

Col. Jaques has long been extensively known as a skillful breeder of various kinds of stock. Some of the first premiums of the Mass. State Ag. Society on Merino sheep, were awarded to him. He was also one of the first introducers of the Leicesters and South Downs—having received a premium of fifty dollars for the best Leicester buck in 1822; and from the year 1816 to 1834, he received from the Mass. Ag. Society in premiums on Merino, Leicester, and South Down sheep, the handsome sum of three hundred and twenty-five dollars. He was also the owner of some of the first of the improved Short-horn cattle that were brought to this country. Among these were the bull *Cælebs* and cow *Flora*, imported in 1819. They were derived from the celebrated herd of Mr. Mason, of Chilton, Durham. From this pair, Col. J. bred several animals which were much admired—some of them received the highest prizes of the Mass. State Ag. Society,* and sold at prices from $300 to $500 each, which at that early day were considered very high.

In 1823, Col. Jaques sold his bull *Eclipse*, then two years old, to the Agricultural Society of Montreal, for $500. The Montreal papers, in noticing his arrival there, declare him to have been superior in points and appearance, to any thing which could have been anticipated. [See extract from the Canadian Courant, in the New-England Farmer, vol. 1, p. 350.]

According to the documents which accompanied the importation of Cœlebs and Flora, (copies of which have been placed in our hands,) the former was the grandson on both sides, of Mr. Colling's bull *Comet*, which was sold for a thousand guineas. Flora's dam and sire were also both by Comet. Her dam was said to have given 33 quarts of milk per day. Cœlebs was a very popular bull, and for several years earned his owner the round sums of from $500 to $600 per year; and during the time Col. J. owned him, no less than three thousand two hundred and thirty dollars were received for his services. Many of his progeny were remarkable as milkers. In a letter received from Col. Jaques, dated Jan. 16th, last, he says,—"The different strains of Cœleb's blood are now daily talked of, and are eagerly sought after, in all parts of the country where his blood has been spread—particularly by our *milk-men;* and I am frequently called upon to go and see a fine cow whose blood can be traced back through several generations, to Cœlebs; and not unfrequently do I find a fine animal of the fifth or sixth generation, showing points almost equal to a full blood. Mr. Leonard Stone, of Watertown, one of our best and wealthiest farmers, says he had two cows by Joshua Coolidge's premium bull, [a son of Cœlebs, which took a premium at Brighton in 1822,] that proved the best milkers he ever had, and he added that he would now be very glad to obtain a number of such cows, at $100 each."

There can be no doubt that Cœlebs caused a great improvement in the stock of Massachusetts and other sections where his progeny were introduced.* The variety to which Col. Jaques has given the name of "CREAM POT BREED," originated from a cross of Cœlebs with two remarkable cows selected from what is called the native stock of the country.

The Cream-pot cows are distinguished for the quantity and particularly for the *richness* of their milk. Particular trials have been made with some individuals of this stock, and they have given at the rate of from seventeen to twenty-one pounds of butter per week. Col. J. has a few cows of this breed now on his farm. He would have had more, but the tempting offers of a hundred dollars a piece for his heifer calves, have induced him to part with most of them at an early age. We were shown the milk and cream from the cow *Gem*, and one or two others. The cream is of a very rich yellow color, and of uncommon thickness and tenacity. That which had risen on pans of milk that had only stood eight hours, was so firm that after being separated from the edge of the pan, it would almost hold together to be lifted by a fork.

The shape and points of these cows are remarkably good. Gem, which may be considered a fair specimen of the best of the family, is a very large bodied short-legged cow, with long, wide and deep hind quarters, a rich yellow and mellow skin, large milk veins and udder. Her color is dark red, which is a family characteristic. Her head and neck have not quite that fineness of some of the pure Durhams or Ayrshires, but her body, especially the hind quarter, is very near *right*, and her *handling* is first rate.

Judging from what we have seen, we should say, to sum up the qualities of the Cream-pots, that for the New England climate, lands of middling quality, and the combined purposes of the dairy, the shambles, and the yoke, they are not probably surpassed by any other stock.

In feeding his stock, Col. Jaques practices close economy. He has sometimes kept a herd of cows for the purpose of supplying milk for the market. The following is a system of feeding which he has followed with success. For 30 cows, cut with a machine 30 bushels for one feed; one-third common or English hay, one-third salt hay, and one-third rye or barley straw; add 30 quarts of wheat-bran or shorts, and 10 quarts of oat and corn meal moistened with water. One bushel of this mixture is given to each cow in the morning, and the same quantity at noon and in the evening. In addition to this, a peck of mangel wurtzel is given to each cow per day. This mode of feeding has been found to produce nearly as much milk as the best grass feed in summer. When no wheat bran or any kind of meal is given, the hay is fed without cutting.

Col. Jaques has favored us with some very valuable papers in reference to the introduction and improvement of stock in New-England, and other matters, from which we design to form a separate article.

* No less than six hundred and forty-one dollars, were awarded in premiums, by the Massachusetts State Agricultural Society, to Cœlebs, Flora, and their descendants, from 1819 to 1835. Flora had fourteen calves—the first in 1819, and the last in 1833

* The late Hon. John Lowell, in his Report on Bulls and Fat cattle at the Mass. State Show at Brighton in 1824, observes—"On the whole it must be obvious that Cœlebs has done much for the amelioration of our stock. His progeny are certainly fine." [See Mass. Ag. Repository and Journal, vol. 8, p. 221.] The same gentleman, in an article on the improvement of the breed of cattle by the importation of foreign stock, (Mass. Ag. Repository and Journal, vol. 8, p. 311,) makes the following remarks—"While Col. Jaques, the most successful, and the most intelligent of our breeders, who, under great disadvantages of location, seems to rival the celebrated Bakewell, in his skill and attention, can sell his pure breed, as he has done this spring, at $300 for an eight months old bull-calf, there can be no doubt that the experiment will be fairly tried."

THE ORCHARD CATERPILLAR—TIMELY CAUTION.

MANY of our readers will recollect the extensive injuries committed on the apple-trees of this country, several years ago, by the common orchard caterpillar. Either from the unfavorable seasons or from some other cause, they subsequently disappeared in a great degree, and for a few years past we have been very little troubled with them. But they are now again on the increase; in the summer of 1843 there were some occasionally to be seen; last year they had multiplied very considerably; and present indications promise very severe damage next summer.

What are those indications? And are they sure?

They are the numerous nests of eggs, scattered thickly over the apple-trees, in all orchards, at least in the western part of the State, and doubtless in the other portions; and unless these are destroyed either accidentally or purposely, before next spring, the owners of orchards may expect trouble.

Caterpillar's Nest—(Fig. 23.)

One of these nests of eggs is accurately represented by fig. 23, encircling the branch. The eggs are first laid closely round the branch, and afterwards covered over with a water-proof varnish; in the form of numerous small vesicles or bubbles, like the scum on boiling molasses, the numerous air-cells forming a non-conductor of heat and effectually protecting the eggs from the greatest severities of winter. Sometimes they only extend partly round the branch. The number of eggs, each one producing a caterpillar, is from about three to five hundred in each nest, most of which usually hatch. They are laid in the latter part of summer and early in autumn. They remain until the following spring, and the young caterpillars come out just as the leaves of the apple are bursting from the buds. At this time, a whole nest of five hundred are not so large in bulk as a single caterpillar when fully grown. They increase rapidly in size as the leaves expand, and in a few weeks, one nest of them will completely defoliate a large branch. The consequence is, that neither the branch itself, nor the fruit it contains can grow and mature. Where there are several nests on a tree, the crop is very seriously lessened in size and quality.

The number of remedies are in proportion to the extent of the evil. The usual course is, first, to leave them unharmed until they become large, vigorous and hard to kill, and until they have already done considerable mischief. They are then beaten off by whips; threshed off by poles, wound upon long sticks while in their webs, and crushed; scoured off by circular brushes; whitewashed with lime; anointed with soapsuds or strong ley; shot or blown off with gunpowder; or swept off clean while young by ascending a ladder and grasping them with both hands. The latter appears to be the most effectual of these modes. Many would prefer first covering their hands with mittens, though we know a distinguished cultivator who fearlessly takes a nest at any age, and grinds it in his ungloved hands till all are destroyed.

But *an incomparably better mode* is to take a basket in one hand; a long and light pole, with a pair of clipping shears worked by a cord at the end, in the other; and pass through the orchard any time during autumn or winter, clipping off all the nests of eggs, throwing them into the basket, and afterwards burning them. In the absence of shears, a *very sharp*, hooked knife, set in the end of the pole, will answer nearly as well. A day when no bright clouds are overhead, should be selected, to prevent pain to the eyes. A little practice will enable the operator to see them at a glance, as they are generally within a few inches of the extremities of the branches. Every nest thus removed, done in two or three seconds, effectually prevents a nest of caterpillars next spring, without the danger of stragglers escaping, which is nearly always the case after they are hatched. The expedition of this mode is another chief recommendation.

The only objection to this mode is, that it gives such a fine opportunity for the pranks of that vexatious old thief "*Procrastination.*" For it may be done "*any time*" through autumn and winter, and hence is neglected for the same reason that the old man near Niagara falls had never seen the cataract, because he could go and see them "any day."

FASTENINGS FOR STALL CATTLE—(Fig. 24.)

SOME of our readers may be familiar with the following mode, but its convenience, simplicity and effectiveness, render it worthy of more general adoption.

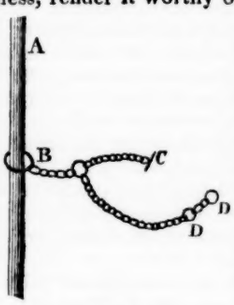

Fig. 24.

Two cows will occupy one stall six feet wide. An upright pole, A. is placed near the partition on each side, to which the animal is fastened. The crossbar C. at the end of the chain, hooks into one of the rings D. D. and holds the animal—into the outer ring for a large, and into the inner ring, for a small animal; the sliding ring B. fastens the whole to the upright post, and while it permits the cow either to stand up or lie down freely, it prevents her from making war on her neighbor, standing with her side by side.

THE APHIS, OR PLANT LOUSE.

A friend desires us to give some information in regard to the extirpation of the aphis from rose plants, &c. Solutions of soap tobacco-water, or tobacco-water and soapsuds mixed together, have been used with success. Flour sulphur dusted on the plants with a swan-down puff, and fumigations with sulphur and with tobacco, have been found effective. Decoctions of elder leaves and of cayenne pepper, are likewise useful. When the insects first make their appearance on the plants, they are mostly on the ends of the twigs or branches, and they may then be easily got rid of, by plucking off the leaves to which they are attached; or the branches may be bent into vessels containing some of the above solutions, and the insects thus killed. In using the liquids on the plants, some little force is necessary to insure the desired effect. A syringe, with a nose like that of a watering-pot, is the best contrivance for this purpose. Willis's syringe, which is for sale by J. Breck & Co. Boston, is well recommended.

Some other insects are troublesome on rose-plants. The Rose Scale, (*Aspidiotus rosæ,*) lives on the stems and old twigs of rose-trees, which are often entirely covered with them, and look mouldy. When numerous, they are very destructive. Kollar says the best way of getting rid of them, is brushing them off with strong brushes before the plants sprout.

The *rose-moth* is also a troublesome enemy to the rose. From its smallness and peculiarity of form it is easily overlooked. Kollar thus describes it: "If the new leaf shoots are closely examined, a little brownish scale is found here and there attached to them; and on nearer inspection, we shall be convinced that it is a little case, in which a worm, the larva of a small moth, is concealed, which gnaws the tender shoots. When it has devoured one shoot, it removes with its house, and attacks another, and thus in a short time, one of these larva can strip a whole branch of its shoots. The larva which lives in the little case is only a few lines long; yellow, with a black head and spotted collar," &c. To preserve rose-trees from this enemy, Kollar directs that the small cases in which the moth is enveloped, be looked for in early spring, before any foliage is developed, when an experienced eye will discover the insect. They should be taken off and crushed immediately, for if left, they will re ascend the tree.

FACTS IN FARMING.

Nothing is more agreeable to us, than to meet with observing, practical farmers, from whom we can gather valuable facts. One day in January last, we called on Mr. WILLIAM MERRIFIELD, who lives in Guilderland, about sixteen miles from this city. The weather being inclement, and the ground covered with snow, we could not go over the farm to examine the soil and mode of management, but we had the pleasure of seeing his cattle, sheep, hogs and poultry, and of obtaining from him some useful hints in relation to farming operations.

CATTLE.—Mr. Merrifield is a native of Devonshire, England, and he informs us that the dairymen in that district were in the habit of crossing their Devon stock, occasionally, with the Jersey-Island, or Alderney breed; the result of which was, a great improvement in the milking and butter making qualities.

Mr. Merrifield states that about thirty-five years ago, the late Chancellor LIVINGSTON had some imported cattle called Devons, but whose color, points and qualities, indicated that they had a dash of the Jersey blood. They were excellent for the dairy. Mr. M. had the good fortune to obtain a heifer of this stock, from a gentleman to whom it had been presented by Chancellor Livingston. She proved a first rate butter cow.

Several years after this, Gen. SOLOMON VAN RENSSELAER, of this city, purchased two bulls and twelve cows of Gen. WILLIAMSON, of Ontario county. One of these bulls was called a Short-Horn, and the other a Long-Horn; but Mr. Merrifield has no doubt that the latter was a *Hereford*, as he had the red color, white face, and other characteristics of the Hereford race. The stock bought of Gen. Williamson, were said to have descended from animals imported by him from England. Mr. Merrifield crossed the stock which came from the (so called) Devon heifer with two bulls from the herd of Gen. Williamson, and has kept the stock thus derived to this day, with no other mixture than a slight cross with the short-horns of the late Matthew Bullock, Esq.

Mr. Merrifield observes that the blood of the Hereford bull (as he calls him) above mentioned, must have been very *strong*, as his descendants, down to the present time, show many of his prominent characteristics, though they may have no more than a sixteenth or thirty-second part of his blood. Mr. M.'s stock look well, and *do* well for the dairy, and have generally good constitutions, with a fair disposition to fatten. A three year old heifer of his, is really "hard to beat," for a combination of qualities that constitute a profitable animal. A few years ago, Mr. M. had four cows, all four years old. He tried the milk of the four cows for a few weeks, while they were kept entirely on pasture feed, and they made, on the average eleven pounds of butter each, per week.

SHEEP.—Mr. Merrifield has a small flock of excellent long-wooled sheep. They were originally Leicesters, derived from the flock of Mr. Dunn, but latterly Mr. M. has worked in the blood of the Cotswold. Last season, he sheared sixteen ewes, (each of which reared a lamb,) four bucks, two wethers and four yearlings, and they gave an average of seven pounds of perfectly washed wool per head, which sold at thirty and a half cents per pound—making the value of the fleeces two dollars thirteen and a half cents each. One yearling buck sheared eleven and a half, and a three years old buck ten a half pounds. Mr. M. has had a buck which sheared twelve pounds per fleece, and Mr. Dunn had one that sheared fifteen pounds, of one year's growth. Mr. M. has frequently fatted wethers of his flock, and they have sometimes weighed as high as forty-five pounds per quarter, bringing (sold on the farm) from ten to fifteen dollars per head.

SWINE.—Mr. Merrifield has a first rate stock of swine. They are a cross of the Cheshire (from stock imported by Mr. Corning) and the Mocha. They have small heads and legs, with very large bodies, and can be made fat at any age with small expense. He was feeding his breeding stock almost entirely on raw carrots, yet they were fat to a *fault*. He has a boar, nineteen months old, whose superior, every thing considered, we think we have never seen. The average weight of these hogs, tolerably fattened, has been, at six to eight months old, 175 to 200 lbs., and at eighteen months old, 400 lbs.

POULTRY.—Mr. Merrifield showed us two breeds of hens—a large sort, evidently a cross of the Java and Malay, and the Game. The latter are as handsome in shape, and as fierce in appearance, as any we have seen.

SPRING WHEAT.—Mr. Merrifield has for many years sowed more or less spring wheat. He finds it a rather more sure crop on his land than winter wheat. Of late years, however, it has often been injured by the worm, or maggot, in the head, (*Cecidomyia tritici,*) improperly called "weevil." Late sowing, for spring wheat, is the best remedy against this enemy. Mr. M. has had the Italian spring wheat eighteen years, and by taking great care to save the plumpest and heaviest for seed, it has much improved, become more hardy, &c. He has now a quantity of this seed wheat, which is very clean, a few bushels of which he would spare.

POTATOE ROT.—Mr. Merrifield's potatoe crop has suffered much from the prevailing malady for two years, particularly the last. He has as yet found no remedy against it. He has made fair experiments with lime, put on the seed at planting time. It has done no good whatever, so far as could be seen. Last year he caused some of the potatoes to be thoroughly rolled in lime, just before planting them. The whole crop rotted without any regard to the lime. This is worthy of notice, as it has been by some supposed that lime would prevent the rot

CUTTING GRAFTS.

Lord Bacon said very truly, "When nations arrive at civility and elegancy, men come to build stately, sooner than to garden finely, as if gardening were the greater perfection." Yet the most of farmers who expend one to two or three thousand dollars or more on a fine dwelling, think it extravagance beyond sufferance, to expend one or two hundred dollars to have a good, pleasant, profitable garden, for themselves, wives and children. And no part of the "greater perfection" aforesaid, is more neglected, than that appropriated to the cultivation of first rate fruit. How much better to have rich, sweet and superb cherries for one or two months in the early part of summer, than only the common pie cherry, whose only taste is its intense sourness; and apricots, almost equal in flavor to the most delicious peaches, and ripening weeks before the earliest peaches are thought of; and melting pears before harvest, and so on in succession till mid-winter; and the finest peaches all the autumn; and other fruits added, the whole making out a complete circle of succession the whole year round.

Now, those who have worthless, or second or third rate trees, should forthwith prepare to graft better into them. Now is the time to cut the grafts, which may be collected any time during winter, if they are well preserved till spring. No pains should be spared in getting the very best kinds; some money and a few long rides will be well employed for this purpose. If the fruit can be examined before the kinds are chosen, it may be done much more satisfactorily;—although those who are not familiar with good fruits might make some blunders. We have known some cultivators, when travelling from home, and very hungry, select as delicious some very contemptible sorts, which their keen appetites led them to pronounce delicious.

To preserve grafts till spring, the following mode is perhaps the best, as it is uniformly successful, and of very easy performance: Procure a wooden box, of a size about twice as large as will contain the given bundle of grafts, and open on one side; put the grafts into it, and fasten them by cross sticks as far as possible from the open side. Then dig a hole into the ground to receive the box with its contents; place the open side downwards, and cover the whole with earth till wanted. Two or three inches of earth over the top of the box are enough. A dry spot of ground should be selected. In this way the grafts are kept damp enough, without being wet by actual contact with the soil.

Timber and corn cannot be grown together with advantage.

SPRING GRAIN.

Excepting the liability of spring wheat to be attacked by the insect improperly termed "weevil," we believe it may be assumed as a rule, that spring grains generally succeed best when sown as early in the season as the ground can be brought into a proper state to receive the seed. For oats, in particular, and especially on light soils, our experience leads us to prefer an early seed time. In this latitude, the ground frequently becomes so far settled during this month, that warm, light soils may be sown. The proper quantity of seed per acre, is a matter on which much diversity of opinion prevails. From one and a half to *five* bushels of oats are sown by different farmers. In our opinion, the quantity of seed should be varied according to the nature of the soil, and the time of sowing; so that no fixed rule can be laid down. Of the grain we are now speaking of, we should use from two to three bushels per acre, in the ordinary mode of sowing. And we would here remark, that our experience has shown that *less* seed is required on *rich* than on thin soil. The reason is this: That in the first case the abundant food the plant receives induces it to *tiller*, or spread; whereas in the latter case but a single seed stem, perhaps, is thrown up. It should therefore be made an object to sow on thin land as much seed as will be sure to cover the ground at once with a sufficient number of plants, for if this is not done, weeds, or some foul growth, will be sure to infest the soil to the injury of the crop.

As regards the practice of sowing four or five bushels per acre, as we have mentioned is sometimes done, we must confess we have seen no satisfactory evidence of its expediency.

For barley, a loamy soil is considered preferable; we have, however, seen good crops grown on quite stiff clays, properly drained and worked. We have sown from two and a half to three bushels per acre.

For wheat, loamy soils, which contain some lime, are best. We prefer sowing about two bushels of seed to the acre. We remarked above, however, that the quantity of seed depended somewhat on the *time* of sowing—thus, early sown grain has more time to tiller, and it actually will spread much more than late sown. In our remarks about the quantity of seed, we have had only in view the ordinary modes of sowing; no doubt is entertained that by the adoption of other modes, much seed might be saved. Sowing or planting in drills, by machines, has been much practiced in England, and to some extent in this country, and so far as we have known with success. *Dibbling*, or planting in hills, is also somewhat practiced in England under the *allotment* system. In this way a few quarts only of seed is enough for an acre, and the product is very great, making an average, in some districts, of forty-eight bushels per acre. But it must be recollected that under this system the ground is hoed and kept clean while the crop is growing—the cheapness of labor, and the dearness of land, justifying the course. But the American farmer would hardly find his account in bestowing so much labor in proportion to the quantity of ground and the quantity of produce.

We have said that spring wheat is liable to be injured by an insect. We think that which is sown early is most subject to injury from this cause. If the sowing is deferred till the latter part of May, it is thought the *season* of the worm becomes past before the wheat is sufficiently advanced to be injured by it. But as the late sown wheat is more liable to injury from rust, &c., than early sown, the farmer must make his calculations as he best can, which enemy is most formidable, or in what course lies his greatest chance of success.

Peas, for early use, cannot be sown too soon after the ground is dry enough to work. Select a warm piece of ground, rather sandy, and do not put on too much rank or strong manure, as it tends to throw the peas too much into vines.

The pea-crop is a very profitable one in many situations. Sown on a sod furrow, it furnishes an excellent preparation for wheat, or any other crop. Very hot weather seems not to be favorable to the *filling* of peas; therefore it is advisable to sow them so early that they may get well advanced before the hottest and dryest part of the summer comes on.

Peas and oats are sometimes sown together, and are considered profitable. Ground into meal, they form an excellent food for fattening hogs and other animals, and in sections where Indian corn cannot well be grown, are highly esteemed.

CARE OF STOCK.

During the latter part of winter and the beginning of spring, stock requires more attention than at any other season. There is usually much stormy weather about this time, and under the fluctuations from heat to cold, and from fair to foul, the appetite of the animal is very irregular. Cattle, sheep and swine, are now bringing forth their young, and unless they are properly sheltered, provided with suitable food, and carefully watched and attended, they will certainly fall into bad condition. The best hay should have been reserved for feeding the cows and ewes at this period, and they should be fed, besides, with a little grain in some form, and some potatoes, turneps, carrots, or other vegetables. They should be fed lightly for a few days after parturition, because in the weakened state of the system at this critical time, there is danger of bringing on fever and inflammation by overloading the digestive organs. But after the system has become accommodated to the new change in the secretions, and the milk begins to flow freely, the food of the mother may be increased in proportion to the draft made on her by the increasing growth and demands of the young animal. This should be borne in mind. Thus, a cow with two calves to support, or a sheep with two lambs, should be supplied with double the quantity of food which is necessary to support but one; and if this is not done, the constitution of the mother will be very likely to be injured, or else the young will not have sufficient food. To enable a sow with ten pigs to keep herself in as good condition as if she had but five, she must receive food in proportion to the number; and as the young grow in size, her food must also be proportionally increased till they are able to obtain a part of their support from some other source.

Care should be taken that cows do not calve while tied to the stanchion, or confined in a narrow stall. Serious accidents may arise from inattention to this. If the birth takes place in the night the calf may get covered with the filth of the stall, and if the weather is severe, he may freeze before morning; or the cow may be thrown into a position by which she suffers a permanent injury. Separate apartments, warm and well littered, should be provided, in which the cow should be allowed to run loose for a few days preceding the birth of the calf, and for a day or two afterwards.

A word in regard to calves. If *veal* is the object, feed the cow well, let the calf suck, and make him fat as quick as possible. If milk is of most consequence, and the calf is not to be reared, it is best to "knock him in the head" as soon as the milk of the cow is fit for use. His carcass is worth something for the hogs, and his hide may pay for taking off for the tanner. In *rearing* calves, the expediency of any particular mode depends on circumstances. In the interior, where cattle are reared almost entirely for beef, and where labor is scarce, it is hardly worth the while to undertake bringing up calves "by hand"—it is less trouble to let them run with the cow for several months, and this is probably the best course in such locations. But where butter and cheese are valuable the case is different, and we should prefer teaching the calves to drink instead of allowing them to suck their dams. With close care and attention, good stock may be reared without giving them any new milk after they are two or three weeks old. Skimmed milk, *not sour*, with oil-cake gruel, or oat-meal, will make the calf grow very well. But the calf must be kept dry and warm, the food given warm, and the state of its health, till it becomes well accustomed to the diet, constantly watched. There are several advantages of rearing calves in this way. They become more tame, more readily learn to eat every thing, are more tractable, and are more easily brought to their *duties*, either as cows or oxen, and

in some locations, as we have mentioned, this course is most economical.

Oxen and horses, which have worked hard during the winter, will be much benefitted by being allowed a respite during this month of storm and mud; and while the farmer and his boys are engaged in cutting and splitting the year's stock of wood, which has been (of course) got up by good sledding, he will find it much to his advantage to let his oxen quietly chew the cud "of sweet and bitter fancy" in the comfortable barn, or sunny barn yard.

This interval of rest will enable the animals to recover some of their flesh and strength, which have been exhausted in hauling wood and logs, or in carrying the farm products to market; their old hair becomes loose and falls off, the pores of the skin are opened, and the animals, reinvigorated, are fitted to withstand the heat and burden of the spring's labor.

CULTIVATION OF ASPARAGUS.

Of all vegetables, treated as "*greens*," the asparagus is considered by most, as standing at the head of the list. Comparatively few, however, provide themselves properly with a supply, or even where they have an abundance, it is not of the first quality. Perhaps a few hints on its culture, and on the mode of obtaining the finest, may be acceptable at this time.

The difference between large and small asparagus, depends very much on cultivation; a deep rich soil, and *plenty of room between the plants*, producing the largest growth. Something also doubtless is to be attributed to the variety; as by a successive selection of seed from the thriftiest plants, an ultimate improvement may be obtained. Hence, in making a bed, seed from those plants which are known to be very large, are to be preferred. If good plants, one or two years old, can be obtained at hand, the bed will of course be accelerated one year.

A common and a good practice in preparing an asparagus bed, is to trench the ground two spades deep, and then return the earth thus removed, mixed with alternate layers of nearly an equal quantity of stable manure, until the top of the bed is six inches above the surface of the ground. But a great improvement on one part of this process is—after each layer of soil is thrown on the preceding layer of manure, to *intermix it very thoroughly* with the manure, by means of a coarse iron rake, potatoe hook, or other suitable tool. This thorough admixture of soil and manure, though scarcely ever practiced, is of the greatest importance, as large lumps of pure manure, and of earth, without being finely divided and interfused, form but a poor material for the extension of the fine and delicate fibres of the growing plants.

The bed being ready for the reception of plants from the seed bed, which should be removed with the least possible injury to the roots, proceed to lay off the trenches for the rows. One of the greatest errors with most cultivators is crowding their plants too closely together; they wish, after so much labor in the preparation of a fine bed, to obtain the largest possible supply from it, but defeat their own purpose by the slender and diminished growth resulting from such treatment. The nearest possible distance which ought ever to be admitted in an asparagus bed, is one foot apart *in* the row, and eighteen inches *between* the rows. Thus, if the trenched bed is four feet wide, only two rows can be admitted, instead of four or five as usually practised. This may be seen by the following diagram, the dots indicating the plants, which

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are placed, not opposite, but alternating with each other, which gives the more space between them. If there are eighteen inches of space between the rows, then there will be fifteen inches from the rows to the edge of the bed, which is none too much for the proper extension of the roots. The trenches for the plants should be made six inches deep, and wide enough to admit the roots spread out horizontally, which must be done with the fingers. The depth should be such that two or three inches of earth may be spread on the crowns of the plants. The beds may be made of any length to suit cultivators. One a hundred and fifty feet long and four feet wide will supply an abundance for a moderate sized family.

After a bed is transplanted, it should remain uncut for two seasons. Cutting sooner will greatly injure its subsequent thriftiness.

If it is remembered that the two chief requisites for success, are *plenty of room* for the growth of the plants, and a *deep, fertile soil*, no one need be at a loss in the cultivation of this fine vegetable. Good, constant, and cleanly culture, as every one must know, is indispensable. These requisites are of vastly greater consequence than large varieties merely. Indeed, the fact that with good cultivation and management, no plants are small, and without that none are large, has led many intelligent persons to suppose that the difference between giant and small varieties is owing entirely to these circumstances, and they are not far wrong.

One advantage which may be derived from planting the rows more distant than is usual, besides large growth, is the facility of keeping the ground cultivated, a light plow drawn by one horse being passed freely between them.

With such distances, and the facilities afforded for horse cultivation, much finer plants may be had from a rich deeply plowed soil only, than without them from a trenched bed two feet deep, though depth and distance combined are the best.

DOMESTIC ECONOMY.

Buckwheat Cakes, after standing to rise all night, are much improved by adding, just before baking, sour cream and saleratus—say a teacup full for two quarts of the batter. This treatment improves the flavor, and makes them richer and lighter. It was discovered this winter by a notable housekeeper in the western part of the state, where fine hot buckwheat cakes and keen appetites, on frosty mornings, often go together.

Corn Cake.—Two teacups of buttermilk, one of sour cream previously sweetened with saleratus, one tablespoonful of molasses, and Indian meal to make it nearly as stiff as muffins. Bake half an hour. Thoroughly tried by the above mentioned housekeeper, and found first rate; and also eaten with good *gusto* by the writer.

Apple Jelly.—Slice thirteen large apples very thin without paring them; then cover them with water; boil and strain them,—and to the juice add a pound and a half of loaf sugar, and as much lemon-juice as your taste may direct. Clarify it with eggs, and boil it to a jelly. It is an exceedingly delicate, palatable, and beautiful dish, fit to grace any wedding table, the writer having partaken of it on such an occasion, the housekeeper above named forming the center of attraction at the time. It is also very fine in sickness.

Domestic Yeast.—The following is copied from the London Gardener's Chronicle, and must be cheap and easy. Boil one pound of good flour, quarter of a pound of brown sugar, and a little salt, [how much is that?] in two gallons of water, for an hour. When milk warm, bottle it and cork it closely, and it will be fit for use in twenty-four hours. One pound of this yeast will make eighteen pounds of bread.

FRANKLIN COLLEGE.

From the Tennessee Agriculturist, we learn that this institution commenced operations on the first of January, with about fifty students, and that as many would probably apply in the course of a few months as can be accommodated. The President, T. Fanning, Esq., states that the prospects were favorable to success, which we are glad to hear. A greater number of mechanics are wanted, such as blacksmiths, coach makers, harness makers, and cabinet workmen; and it is stated that "a young man acquainted with any of these trades, and who is willing to devote some four or five hours a day to honorable industry, may be sure that he can at least pay for his board and tuition by his trade, and secure as good an education, in as short a time, as if he possessed millions."

Beaverwyck, the seat of Wm. P. Van Rensselaer*—(Fig. 28.)

LANDSCAPE GARDENING.

A Treatise on the Theory and Practice of Landscape Gardening, adapted to North America, with a view to the Improvement of Country Residences, comprising historical notices and General Principles of the Art, directions for Laying out Grounds and arranging Plantations, the Description and Cultivation of Hardy Trees, Decorative Accompaniments to the House and Grounds, the Formation of Pieces of Artificial Water, Flower Gardens, etc., with remarks on Rural Architecture. Second edition, enlarged, revised, and newly illustrated. By A. J. Downing, Author of Designs for Cottage Residences, etc. New-York—Wiley & Putnam.

THE appearance of a second and greatly improved edition of this admirable work, must be hailed with pleasure by every friend of rural improvement. The early success which has attended the first and only work of American origin, devoted entirely to this subject, while it not only proves the ability of its execution, furnishes also the gratifying evidence of the rapidly increasing wish among our countrymen, for the tasteful embellishment of their country residences. To this increased attention to landscape gardening, the work before us has contributed very considerably, although but three or four years have elapsed since its first appearance.

Beside much valuable matter added to the present edition, a large portion of the first part of it has been rewritten, some modifications of the principles of the art introduced, and more than twenty new views are given, chiefly of American residences and their adjacent grounds, executed in the best style, and all excellent illustrations of the beautiful and picturesque in the art. Descriptions of many new places are introduced, and some valuable practical hints are appended to the body of the volume. As but few of our readers possess this work, we hope we shall do them an acceptable service, by giving a more extended account of its contents.

The work opens with a general notice of the objects of landscape gardening; a glance at the ancient and modern styles, with their characteristics; an account of the origin of the modern or natural style, its progress and general adoption; and a history of the art in the United States, with a reference to many examples now existing, accompanied by several beautifully engraved views. The general principles of landscape gardening are then laid down in a very clear and interesting manner, and an insight is given into the beauty, the endless variety of expression, and even the sublimity, belonging to the study of the modern style. The details of the art next come in order; and the treatment of woods and plantations, the grouping and arrangement of trees, and their peculiar characteristic expressions; with a subsequent full treatise on the individual ornamental trees adapted to the climate of the country, and the places to be assigned them in ornamental grounds, follow successively in course. Another section is devoted to the treatment of ground and the formation of walks; another to the formation of artificial lakes and the management of brooks, cascades and waterfalls; and another to rural architecture, with the features and associations of the different styles, illustrated by many views. The work concludes with a chapter on rural embellishments. An appendix contains many practical directions, and also a minute, and consequently useful and instructive description, by J. C. Loudon, of a moderate, but very beautiful suburban residence in the neighborhood of London, an excellent specimen of the modern style, and which every one, wishing to become well acquainted with it, would do well to study. From this general enumeration of the subjects of the work, our readers may form a faint idea of the vast fund of value and interest it must contain, every department being treated of in a manner eminently interesting to a person of any taste. Indeed, we found it very difficult to tear ourselves away from its fascinations, during the first examination.

The works of Loudon, which have been extensively read in America with a corresponding influence on this art, though pre-eminent for their plain, practical, condensed style, and for the good sense, general correct taste, and adaptedness of principles, indicate nevertheless a far less appreciation of the picturesque than is contained in the work before us. The favor with which Loudon regarded the old or geometric style of gardening and planting, we consider as nearly his only failure in this respect, except which, his writings possess a *practical* value rarely if ever equalled. But on the other hand, the work of Mr. DOWNING has been eminently successful in laying down the principles of EXPRESSION, whether of single trees and objects, or as grouped without discord in a varied and extensive landscape. He very properly exposes the absurdity of the geometric style, where "the greatest care was taken to avoid any appearance of irregularity. A tree upon one side of the house, was opposed by another *vis a vis*, and a row of trees at the right of the mansion had its always accompanying row on the left; or as Pope in his satire has more rythmically expressed it—

> "Grove nods to grove, each alley has its brother,
> And half the platform just reflects the other."

The old gardener to the Earl of Selkirk was very strongly imbued with the old style mania, when, having shut up a thief for stealing fruit, in one summer house, was compelled, for the sake of symmetry, to confine his own son in the summer house opposite. The extent to which this mania was carried, in distorting nature into odd conceits, with little or no exercise of taste for her

* *Beaverwyck*, a little north of Albany, on the opposite bank of the river, is the seat of Wm. P. Van Rensselaer, Esq. The whole estate is ten or twelve miles square, including the village of Bath on the river shore, and a large farming district. The home residence embraces several hundred acres, with a large level lawn bordered by highly varied surface of hill and dale. The mansion, one of the first class, is newly erected from the plans of Mr. Diaper, and in its interior—its hall with mosaic floor of polished woods, its marble staircase, frescoed apartments, and spacious adjoining conservatory—is perhaps the most splendid in the Union. The grounds are yet newly laid out, but with much judgment; and *six or seven miles* of winding, gravelled roads and walks have been formed—their boundaries now leading over level meadows, and now winding through woody dells. The drives thus afforded, are almost unrivalled in extent and variety, and give the stranger or guest, an opportunity of seeing the near, and distant views to the best advantage.—p. 37.

Kenwood, the residence of Joel Rathbone.*—(Fig. 29.)

genuine beauties, is strikingly exhibited in an extract from a satire of Pope, who, in common with all true poets, shrunk with aversion from the sight of trees drilled rank and file into straight lines, and sheared down to pyramids and statues of verdure:

"Inventory of a Virtuoso Gardener Adam and Eve in yew; Adam, a little shattered by the tree of knowledge in the great storm; Eve and the serpent, very flourishing. Noah's ark in Holly; the ribs a little damaged for want of water.
The tower of Babel, not yet finished.
St. George, in box; his arm scarce long enough, but will be in a condition to stick the dragon by next April.
Edward the Black Prince in Cypress.
A pair of giants stunted, to be sold cheap.
An old maid of honor, in wormwood.
A quick-set hog, shot up into a porcupine, by being forgot a week in rainy weather."

All these contrivances, and fifty others similar, and dissimilar, including concealed pipes for suddenly dousing visitors with cold water, and including also many of the statues, busts, and other objects too common at the present time, were very correctly characterized by Lord Bacon where he said, "as for the making of knots or figures of divers colored earths, that they may lie under the windows of the house, they be but toys; you may see as good sights many times in tarts. I, for my part, do not like images cut out in juniper and other garden stuff; they are for children." How much more worthy of the attention of an enlightened mind, is the simple imitation of the beautiful and picturesque, by a handsome and natural arrangement of majestic trees, adapted to the character of the grounds.

In urging the application of the principles of correct taste, even for very small places, the author has the following excellent remarks:

"But if Landscape Gardening, in its proper sense, cannot be applied to the embellishment of the smallest cottage residences in the country, its principles may be studied with advantage, even by him who has only three trees to plant for ornament; and we hope no one will think his grounds too small to feel willing to add something to the general amount of beauty in the country. If the possessor of the cottage acre, would embellish in accordance with propriety, he must not, as we have sometimes seen, render the whole ridiculous by aiming at ambitious and costly embellishments; but he will rather seek to delight us by the good taste evinced in the *tasteful simplicity* of the whole arrangement. And if the proprietors of our country villas, in their improvements, are more likely to run into any one error than another, we fear it will be that of too great a desire for display—too many vases, temples and seats—and too little purity and simplicity of general effect."

Again, in speaking of the *cottage ornée*, and of laying out and embellishing limited grounds, he says:

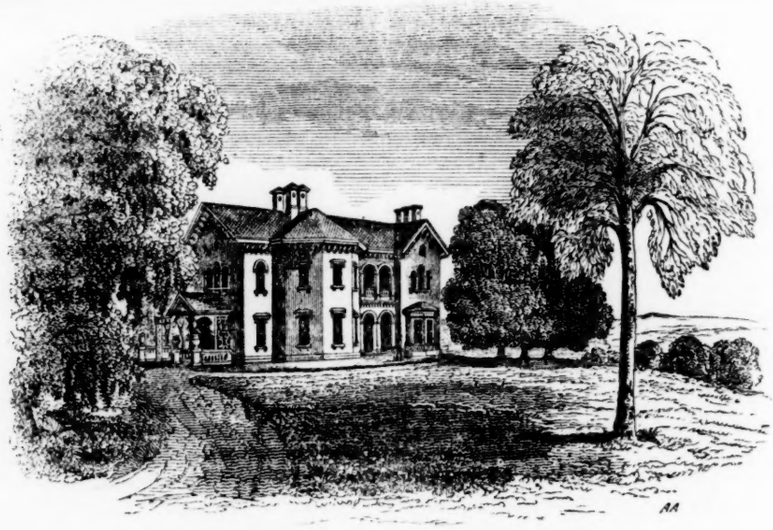
"In making these arrangements, even in the small area of a fourth of an acre, we should study the same principles, and endeavor to produce the same harmony of effects, as if we were improving a mansion residence of the first class. The extent of the operations, and the sums lavished, are not by any means necessarily connected with successful and pleasing results. The man of correct taste, will, by the aid of very limited means, and upon a small surface, be able to afford the mind more true pleasure, than the improver who lavishes thousands without it, creating no other emotion than surprise or pity at the useless expenditure incurred." It is in accordance with these principles that the author very properly places this motto upon his title-page:

"Insult not nature with absurd expense,
Nor spoil her simple charms by vain pretence;
Weigh well the subject, be with caution bold,
Profuse of genius, not profuse of gold."

The wide extent of many of the English parks—though affording some of the finest specimens of the modern style of landscape gardening,—where sometimes a broad and magnificent landscape is embraced within the limits of a single park—we hope never to see imitated in this country, especially if at the same cost of human happiness. For we cannot regard these, even in all their glory, with their wide-spread undulating lawns, their majestic trees, marked with the age of centuries, and embellished with all the beauty of nature, and all the poetry of association—without secret pain and aversion, from the recollection of the thousands of poor laborers, tasked to their utmost strength to support their starving and suffering families, while a large share of their toils go to the support of these costly establishments. While, on the other hand, it is a source of much gratification that such drawbacks do not exist in our own region of the country, we hope the spirit of republican simplicity will always so prevail, that while it teaches us to cultivate a taste for natural and rural beauty, we may always shun extravagant profusion and ostentatious display; and use without abusing the creations of the source, "who made all nature beauty to the eye, and music to the ear." It is with great justice that the author remarks,

"The owner of a small cottage residence, may have almost every kind of beauty and enjoyment in his grounds, that the largest estate will afford, so far as regards the interest of trees and plants, tasteful arrangement, recreation and occupation. Indeed, we have little doubt that he, who directs personally, the curve of every walk, selects and plants every shrub and tree, and

* Situate about two miles south of Albany, on a densely wooded hill, and is one of the most complete specimens of the Tudor style in the United States. It was built from the designs of Davis, and is, to the amateur, a very instructive example of this mode of domestic architecture.—p. 370.



Villa of Theodore Lyman, near Boston—(Fig. 30.)

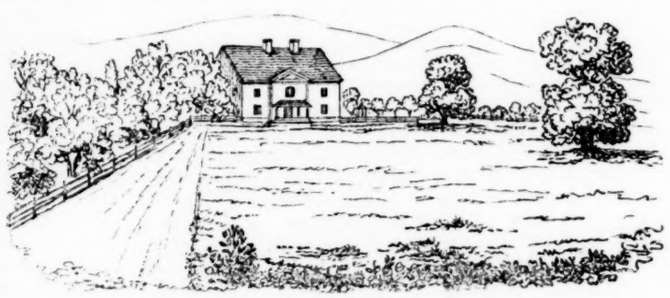
watches with solicitude every evidence of beauty and progress, succeeds in extracting from his tasteful grounds of half a dozen acres, a more intense degree of pleasure, than one who is only able to direct and enjoy, in a general sense, the arrangement of a vast estate."

The following extract contains much in little, and conveys valuable hints to the person of taste:

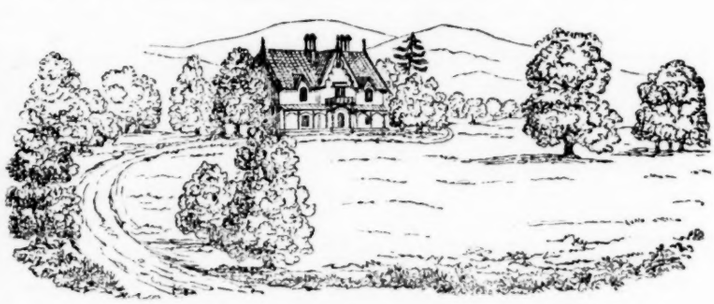
"In the case of large landed estates, its capabilities may be displayed to their full extent, as from fifty to five hundred acres may be devoted to a park or pleasure grounds. Most of its beauty, and all its charms, may, however, be enjoyed in ten or twenty acres, fortunately situated, and well treated; and Landscape Gardening in America, combined and working in harmony as it is with our fine scenery, is already beginning to give us results scarcely less beautiful than those produced by its finest effects abroad. The lovely villa residences of our noble river and lake margins, when well treated—even in a few acres of tasteful fore-ground,—seem so entirely to appropriate the whole adjacent landscape, and to mingle so sweetly in their outlines with the woods and valleys and shores around them, that the effects are often truly enchanting."

But these instances are the splendid few—with regard to more frequent cases, our author remarks:

"In many parts of the Union, where new residences are being formed, or where old ones are to be improved, the grounds will often be found, partially, or to a considerable extent, clothed with belts or masses of wood, either previously planted, or preserved from the woodman's axe. How easily we may turn these to advantage in the natural style of landscape gardening; and by judicious trimming when too thick, or additions when too much scattered, elicit often the happiest effects in a magical manner! In the accompanying sketch, (fig. 25,) the reader will recognize a portrait of a hundred familiar examples, existing with us, of the places of persons of considerable means and intelligence, where the house is not less meagre than the stiff approach leading to it, bordered with a formal belt of trees. The succeeding sketch, (fig. 26,) exhibits this place as improved agreeably to the principles of Landscape Gardening, not only in the plantations, but in the house—which appears tastefully altered from a plain, unmeaning parallelogram, to a simple, old English cottage—and in the more graceful approach. Effects like these, are within the reach of very moderate means, and are peculiarly worth attention in this country, where so much has been partially, and often badly executed."



View of a Country Residence as frequently seen—(Fig. 25.)



View of the same Residence improved—(Fig. 26.)

The following clear, judicious, and interesting remarks on the arrangement and grouping of trees, cannot fail to be useful to every person planting his own grounds:

"The only rules which we can suggest to govern the planter are these: First, if a certain leading expression is desired in a group of trees, together with as great a variety as possible, such species must be chosen as harmonize with each other in certain leading points. And, secondly, in occasionally intermingling trees of opposite characters, discordance may be prevented, and harmonious expression promoted, by interposing other trees of an intermediate character.

"In the first case, suppose it is desired to form a group of trees, in which gracefulness must be the leading expression. The willow alone would have the effect; but in groups, willows alone produce sameness: in order, therefore, to give variety, we must choose other trees which, while they differ from the willow in some particulars, agree in others. The elm has much larger and darker foliage, while it has also a drooping spray; the weeping birch differs in its leaves, but agrees in the pensile flow of its branches; the common birch has few pen

dant boughs, but resembles in the airy lightness of its leaves; and the three-thorned acacia, though its branches are horizontal, as delicate foliage of nearly the same hue and floating lightness as the willow. Here we have a group of five trees, which is, in the whole, full of gracefulness and variety, while there is nothing in the composition inharmonious to the practiced eye.

Example in grouping—Fig. 27.

"To illustrate the second case, let us suppose a long sweeping outline of maples, birches, and other light, mellow-colored trees, which the improver wishes to vary, and break into groups, by spiry topped, evergreen trees. It is evident, that if these trees were planted in such a manner as to peer abruptly out of the light colored foliage of the former trees, in dark, or almost black masses of tapering verdure, the effect would be by no means so satisfactory and pleasing, as if there were a partial transition from the mellow, pale green of the maples, etc., to the darker hues of the oak, ash, or beech, and finally the sombre tint of the evergreens. Thus much for the coloring; and if, in addition to this, oblong headed trees, or pyramidal trees, were also placed near and partly intermingled with the spiry-topped ones, the unity of the whole composition would be still more complete.*

"Contrasts, again, are often admissible in woody scenery, and we would not wish to lose many of our most superb trees, because they could not be introduced in particular portions of landscape. Contrasts in trees may be so violent as to be displeasing; as in the example of the groups of the three trees, the willow, poplar and oak: or they may be such as to produce spirited and pleasing effects. This must be effected by planting the different divisions of trees, first, in small leading groups, and then by effecting a union between the groups of different character, by intermingling those of the nearest similarity into and near the groups: in this way, by easy transitions from the drooping to the round-headed, and from these to the tapering trees, the whole of the foliage and forms, harmonize well."

It has often been remarked that while the natural style of landscape gardening is well adapted to old countries, thickly settled districts, and the vicinity of cities, the geometric style is better suited to new countries already abounding with natural scenery. The author of the work before us very properly exposes the error of this opinion. If the geometric style is a distortion of nature, then it must offend a correct taste wherever it is to be found, whether in the city square, or in the wilds of the west. All that is necessary, in employing the natural method in wild regions, is to adopt a more graceful finish on every part of the grounds, by closely shorn lawns, highly finished gravel-walks, and by planting the more rare exotic trees instead of those of native growth—to have the place "kept in high and polished order, instead of the tangled wildness of general nature." Art and wealth are more strikingly and visibly shown to the hasty observer by the geometric style; but the *perfection* of art consists not in this external show; but merely in the pleasing and admirable effect, while the art that produced it is concealed from the eye of the spectator. The most beautiful painting is that which most nearly resembles the finest objects of nature, and where the stroke of the pencil is concealed; and not openly visible, as in the daubings of the sign painter.

A not unfrequent error, with those who are little acquainted with the art, is to suppose that the modern style consists *merely* in *irregularity*. But, irregularity without arrangement, is not taste—confusion is not the beautiful in nature. The scenery which the art produces may *appear* the accidental arrangement of appropriate parts; but it is as really the result of study, as the roughly dashed execution of a skillful painter, where every touch, rude and accidental as it may seem at first glance, is found, on a view of the whole together, to combine in producing the most pleasing assemblage of the different portions. The rules laid down by the author, for the successful arrangement of the various parts of an artificial landscape, are given with great clearness and vigor, and are well worthy of attentive study. Few, at first view, would be likely to form even a remote conception of the various points to take into consideration in laying out a single acre of ground, so as to produce the best effect, combined with "*unity*, *harmony* and *variety*." These are even necessary, where the *planting of nature* already exists, to "the nice perception," in the words of the author, "of the natural expression, as well as the capabilities of a residence," and in which "lies the secret of the superior results produced by the improver, who, to use the words of Horace Walpole, "is proud of no other art than that of softening nature's harshness, and copying her graceful touch."

Our limits preclude much further extension of this notice. But we cannot pass by the interesting section on Rural Architecture without a few words of passing commendation. It may not be known to all our readers, and we will therefore state here, what is well known by many to be the fact, that the publication of this section of this book of Mr. Downing's, has done and is doing more to impart correct notions of the different styles of domestic architecture among our country gentlemen than all other works or articles on the subject, that have ever been read on this side of the Atlantic. Before its appearance, (and that of Mr. Downing's succeeding volume on "Cottage Residences,") there was generally prevalent only a vague and distorted notion of the Grecian and Gothic styles—the former was exhibited in the horrible form of a heavy wooden portico, stuck, without propriety or meaning, against a simple clapboarded house. The author of the work before us, boldly attacked the falsely called Grecian, and pointed out its entire unfitness for domestic purposes, while he has showed the superior beauty of more simple modes of building. Any one who is conversant with the great change of taste which has taken place in the last few years, and is every day more fully evinced, will not be at a loss, on referring to Mr. Downing's remarks on this subject, to trace the revolution of feeling in these matters to its proper cause.

To give our readers some faint idea of the illustrations of the work, and of this section in particular, we introduce here the view of the princely mansion of Wm. P. Van Rensselaer, opposite Albany, an extensive and pleasing example in the Grecian style, (Fig. 28.) Next an example in the Italian style—the seat of the Hon. Theodore Lyman, near Boston, (Fig. 30.) (This is necessarily so reduced as to lose much of the beautiful effect of the irregular front.) For an example of the Gothic, we borrow a view of the fine villa of Joel Rathbone, near Albany, (Fig. 29.) And in a simpler and more cottage like Gothic—what may be called the English cottage style, (Fig. 31)—the view of the pretty Gardener's Lodge at Blithewood, Dutchess county, the seat of Robert Donaldson.

It will be understood that in the extracts we have given, we do not by any means intend to furnish directions which can be followed in laying out grounds. They are entirely too meagre for this purpose, and are only a glimpse of the work, which after all is but a faint glimpse

* We are persuaded that very few persons are aware of the beauty, varied and endless, that may be produced by arranging trees with regard to their coloring. It requires the eye and genius of a Claude, or a Poussin, to develope all these hidden beauties of harmonious combination. Gilpin rightly says, in speaking of the dark Scotch fir, "with regard to color in general, I think I speak the language of painting, when I assert that the picturesque eye makes little distinction in this matter. It has no attachment to one color in preference to another, but considers the beauty of all coloring as resulting, not from the colors themselves, but almost entirely from their harmony with other colors in their neighborhood. So that as the Scotch fir tree is combined or stationed, it forms a beautiful umbrage or a murky spot."

The Gardener's House, Blithewood—(Fig. 31.]

of the vast fund of information and interest contained in the 500 pages, embellished with more than a hundred appropriate and beautiful illustrations.

If it were possible in any respect to improve the work, it would perhaps be in a more terse and vigorous style, and occasionally in a less studied and polished mode of expression. And to readers like us, educated between the plow-handles, it would be pleasant to have the various extracts in French, Spanish, Latin and Italian, rendered into English, the only language which, having once learned, we have not become somewhat rusty in. But these detract nothing from the merits of the work as an excellent treatise on Landscape Gardening, which, unlike many works on similar subjects, is strictly American in its character and adaptation; and for general utility it stands without a rival, and probably will continue to do so for many years to come.*

STATISTICS OF GOOD AND BAD FARMING.

We know of no better way of showing accurately, the importance of the diffusion of agricultural knowledge, than by a comparison of the aggregate products of the land as they actually exist, with what they might probably be with improved cultivation. The following numbers exhibit the whole amount of each crop in the United States, according to the agricultural census a few years since, which was by many supposed to be too low, from various omissions at the time it was taken, and certainly less than at present, from the increase of improved land and population:

Wheat,	91 million bu.	Buckwheat,	7 million bu.
Oats,..	130 "	Corn,.....	387 "
Barley,	5 "	Potatoes,..	113 "
Rye,...	19 "	Hay,.....	12 " tons.

The average product per acre would have been very interesting, could it have been derived accurately from facts; it is supposed to be not far from the following, taking the whole country and all seasons together:

Wheat, ...	12 bushels.	Buckwheat,...	15 bushels.
Oats,.....	25 "	Corn,.....	20 "
Barley,....	20 "	Potatoes,.....	100 "
Rye,.....	20 "	Hay, ...	1 ton.

With our best farmers, or with many which might be named, the whole of these crops taken together, would average about double these rates; some would more than be tripled, as for example, corn, instances being frequent where the general crop for the farm together, and for successive seasons, has exceeded eighty, and in some rare instances, one hundred bushels. These increased results have been obtained by an improved course throughout, including systematic rotation, the best management of manures, the use of good implements, thorough underdraining, the selection of good animals, of the best varieties of grain, and general good management throughout. The spread of agricultural knowledge through periodicals, and in other ways, has mainly contributed to this excellent result.

The total number of bushels of the above mentioned crops, raised in the United States, according to the census, is 764 millions. If these would average each one third of a dollar in value, the total product of these crops would be 253 million dollars. There is no doubt, therefore, that if the best farming prevailed that this enormous amount would be doubled; and therefore that no less than 250 millions of dollars are lost to the country, from the want of a more thorough diffusion of agricultural knowledge and a corresponding practice. It will be observed that the preceding sum scarcely includes one-half of the whole proceeds of farm labor, as cotton, sugar, tobacco, and the products of domestic animals, are not included, all of which would be increased in a corresponding ratio.

It has been estimated, that all the money paid out by our State government in the shape of agricultural bounties, has been much more than returned to the State treasury in canal tolls on the resulting increased productions. It would be an interesting fact, could it be known, how much the treasury has been enriched by the spread of agricultural publications through the State within the last ten years—reckoning by hundreds of thousands would doubtless be exceedingly moderate.

CHEESE MANUFACTURE IN HERKIMER CO.

The Address of Col. A. Petrie, before the Herkimer County Ag. Society, is a sound, common sense article, evincing the good judgment and practical observation of its author. We give an extract in relation to the manufacture of cheese, which from the facts it contains, is especially worthy of preservation:

"Some farmers make less than 300 pounds of cheese per cow in a season, while others exceed 600. Perhaps some of this difference may be accounted for by the inequality of advantages; but I am assured by gentlemen in whose skill in the art we have the highest confidence, that there is a great difference in the product per cow, when all advantages are equal. One case I will mention: A gentleman who has for years made more than 600 pounds per cow in a season, from a dairy of 25 cows, let out his dairy to a tenant, whose reputation as a common cheese-maker, was of the highest order. He observed, that the tenant's cheeses were smaller and lighter than they should be, and suspecting the cause, watched his mode of making them, and found it to be like that of nearly all the cheese makers in the country, by guess. The milk was tempered, and set, and the curd scalded without a thermometor, and less care was taken in other parts of the process than he was accustomed to. He attempted to teach the tenant, who was rather prejudiced against "book farming"—reminded him of his reputation. The landlord, however, made a few cheeses himself, and the tenant looked on. These were found to be larger and heavier than the cheeses made by the tenant. The tenant then adopted the improved mode, and he could make as large a cheese as his friend. Both gentlemen now agree, that the improved mode increased the amount about 10 per cent. Now the tenant was evidently more than an ordinary cheese maker, for *he* would have made over five hundred pounds per cow during the season, but by the improved mode he made over six hundred."

Col. P. remarks that the average rate of cheese per cow in Herkimer county is supposed to be less than 350 pounds per cow, and that as it is nearly all made by *guess*, it is fair to suppose that a careful, scientific mode of making would increase the amount at least 10 per cent; which would amount to over *sixty-seven thousand dollars* annually for that county.

Fine Pork.—Mr. Daniel Briggs, of Hyde Park, Dutchess county, fattened six shoats, which at eight months old were killed and weighed 275 pounds each.

* We would respectfully suggest in the next edition, which must be issued at no remote period, the introduction of the *Black Maple* as a very rich and handsome shade tree, and also of the *Golden Ash*, as one of peculiar character and beauty. Also, the quantity of water needed in a stream, to supply evaporation in summer from artificial lakes of even extent. The note from the N. Y. Med. Repos. appears to contain some mistake, where the "Montezuma estate, Jefferson, Cayuga County, N. Y." is spoken of. There is no such place as *Jefferson* in the county. The large button wood alluded to, grew at Montezuma in the township of Mentz in that County. We do not mention these things to exhibit errors, for we know of scarcely any work of equal size, and embracing so much variety of matter, so free from mistakes.

NEW-YORK STATE AG. SOCIETY.

The regular monthly meeting of the Executive Committee of the N. Y. State Ag. Society for February, was held at the Society's Room in the old State Hall on the 13th. The President, B. P. JOHNSON, Esq. of Oneida in the chair. Present—Messrs. PRENTICE, HILLHOUSE, M'INTYRE and TUCKER of Albany—Mr. BEEKMAN of Columbia—Messrs. WALSH and VAIL of Rensselaer—Mr. ENOS of Madison, and Mr. LEE of Erie.

REPORTS OF COMMITTEES.

Mr. JOHNSON, from the committee to whom was referred the applications for the prize for the best managed Cheese Dairy, reported that they had awarded the Gold Medal to ALONZO L. FISH of Cedarville, Herkimer Co., and three vols. Transactions to ABRAHAM HALL of Holland Patent, Oneida county.

Mr. JOHNSON also reported that the committee had awarded the prize of $25, for the best Experiment in the Culture of Indian Corn, to GEORGE GEDDES of Camillus, Onondaga county.

Mr. JOHNSON also reported that the committee on that subject, had awarded the prize of $20, for the best Essay on Farm Management, to JOHN J. THOMAS of Macedon, Wayne county.

Mr. BEEKMAN, from the committee to whom was referred the Essays on the importance of scientific knowledge in prosecuting successfully the ordinary pursuits of agriculture, reported that the committee had examined the three Essays submitted to them, neither of which, in their opinion were written with sufficient care to entitle it to the premium; and they recommend that the same prize be offered another year.

Mr. LEE, from the commiitee to whom the applications for the prize for the best Text Book on Agriculture for the use of Schools was referred, reported that two books were submitted to them, neither of which were sufficiently adapted for the purpose to entitle it to the prize, and concluded by recommending that the same premium be again offered.

Mr. M'INTYRE, from the committee on Essays on Rotation of Crops, reported that they had awarded the prize, $20, to the writer of the Essay marked A., the author's name being unknown to them. [It was written by JOHN J. THOMAS, Macedon.]

Mr. R. L. PELL, from the committee on Essays on the Culture of the Apple, sent in a written report, awarding the prize, ($20,) to the Essay sent in with the report. [This Essay was written by JOHN J. THOMAS.]

Mr. PRENTICE, from the committee on Essays on the prevalent disease in potatoes, reported that they had come to the conclusion that neither of the Essays were such as would warrant them in awarding the premium.

Mr. LEE, from the committee on Essays on Manures, reported against awarding the premium to the Essay submitted to them. He also reported that the committee had awarded a Silver Medal to R. L. PELL of Pelham, Ulster County, for his report of Experiments to show the comparative value of different kinds of food for cattle.

Mr. WALSH, from the committee on Essays on the Culture of Silk, stated that but one Essay had been submitted to them, and that evidently not intended for the premium, as it did not contain the matters required in the prize Essay. The Essay was referred to the committee of publication.

The committee on Wheat, at the annual Meeting recommended that a premium of $15 be awarded to Mr. E. J. AYRES of Tompkins, provided he furnished certain farther particulars, which, Mr. Ayres having furnished, a premium of $15 was voted him, on his wheat crop, amounting to 114 bushels and 58 lbs. on two acres.

Mr. BEEKMAN presented the Annual Report of the American Institute, which was referred to the committee of publication.

Messrs. WALSH, LENOX and PRENTICE, were appointed a committee on the Library.

The discussion and arrangement of the List of Premiums occupied most of the afternoon, and not being completed, the Board adjourned to meet again on the 15th.

Feb. 15th.—The President in the chair. Present—Messrs. Vail, Hillhouse, M'Intyre, Lee, Enos, and Tucker.

The premium List was taken up, and after a few trifling additions, was ordered to be published.

The Board then proceeded to the appointment of County Corresponding Committees in each County. (We are obliged to defer the publication of this list of committees till our next.)

A resolution was adopted, directing the Corresponding Secretary to open a correspondence with the County Committees, Superintendents of Common Schools, and others, for the purpose of furthering the objects of the Society, and especially the introduction of the study of the principles of Agriculture into our Schools and Academies.

Messrs. TUCKER, BEEKMAN and LEE, were appointed a committee of publication.

After the transaction of a variety of other business, the Executive Committee adjourned to meet again on the SECOND Thursday of March.

A room has been fitted up, in the old State Hall, exclusively for the use of the State Society, where the meetings will hereafter be held. Entrance on Lodge, corner of State-street.

PAYMENT OF PREMIUMS.

All money premiums awarded by the Society, may be obtained on application to THOMAS HILLHOUSE, Treasurer, or to LUTHER TUCKER, Rec. Secretary, Albany. ☞ All premiums not demanded within *four months* after the award, will be considered as donations to the Society.

ANSWERS TO INQUIRIES.

H. AMBLER, Bethel, Conn., will find some good suggestions on improving worn-out lands, perhaps applicable to his location, in our Feb. No page 69.

A. W.—Subsoil Plows can be had of Pruyn, Wilson & Vosburgh of this city—price, from $8. to $16.

M. B.—Black Sea Wheat not to be had in this city to our knowledge.

LUCERNE.—D. E., Allegan, Michigan. The price of lucerne is 37 cents by the single pound. If sown broadcast, fifteen pounds are required for an acre. It can be sent to Detroit per express.

SALT FOR BUTTER.—We cannot particularly answer the inquiry of Mr. BARTON, in regard to the means of ascertaining good from poor salt. The best salt for butter, we believe to be that which is usually sold under the name of *rock* salt. It is sometimes ground for dairy purposes. It may also be rendered fine by putting it in a kettle or boiler, with water enough to cover it, and heating it till the lumps are broken down, stirring it while the process of heating is going on. When it has become fine it may be dipped out and drained, and it is in a suitable state to use. Any impurities that rise to the top of the water while the salt is melting, should be skimmed off. The Liverpool blown, or bag salt, often contains impurities, and does not answer well for butter. The table salt, so called, made at Salina, in this state, it is said by those who have used it, answers very well. Mr. B. will find at page 318, of our last volume, ample directions for purifying salt for butter.

CLOVER SEED.—"A SUBSCRIBER," at Martindale, N. C., is informed that we know of no way of cleaning clover seed, or separating it from the head or chaff, but by a hulling machine. It may be, and often is, sown in the *chaff*; but no rule can be given as to the quantity per acre, as every thing depends on the quantity of seed there is in proportion to the whole bulk.

SOILING.—Our Maryland correspondent, W. ORCUM, (if we read the name right,) will find the exact information he asks for on this subject, at p. 22, of our number for Jan. last, where he will see that Mr. Newhall keeps 25 milch cows on the soiling system. He is also referred to pages 108, 182 and 250, of our last volume, and to page 48, vol. 10, where he will find a detail of the practice of Jas. Gowen, Esq.

FRUIT-TREES.—Mr. Orcum asks the best time for transplanting trees. The fall, immediately after the

leaves have fallen, is preferred by many, and on dry ground, perhaps it is better than spring planting. If, however, you want trees, and did not get them last fall, attend to it in the spring. The roots of trees should not be allowed to get bound by a tough grass sward. If the orchard is not plowed, the trees may be dug round and manured, with compost, muck, &c. On the Ohio river, where large quantities of apples are raised for the New-Orleans market, it is found best to gather them before they get too ripe, and they are picked while the leaves are fully green.

PRUNING HARDY GRAPES.

There are many of our readers, who cultivate fine varieties of hardy grapes, such as the Catawba, Bland, Isabella, Black Cluster and others, who obtain very inferior fruit from a want of proper pruning and culture. Let this work not be passed over another season. They may be pruned any time during winter, till within a short time before the commencement of the flowing of the sap. If put off too long, the bleeding, or effusion of sap from the wounds, will seriously injure them. A week or two is in general sufficient for the freshly cut faces to become dry enough to close the sap pores. Sometimes during a long cold season of freezing weather in spring, moderate pruning may be given with safety, which in milder weather would be highly improper.

It is hardly necessary to give any special directions for pruning hardy grape vines. Those who know how to turn out the thick, crooked, and superabundant branches of fruit trees, to produce thrifty growth of the remainder, and let in the air and sun, can hardly fail in applying the same rules to hardy grapes.

NEW PUBLICATIONS.

CATECHISM OF AGRICULTURAL CHEMISTRY AND GEOLOGY—by JAMES F. W. JOHNSTON, of Edinburgh, author of "Lectures on Agricultural Chemistry and Geology," &c. with an Introduction by JOHN PITKIN NORTON, of Farmington, Connecticut. From the eighth English edition, with notes and additions by the author, prepared expressly for this edition.

In this little work, we think Professor JOHNSTON has decided in the affirmative, the question whether the study of chemistry and geology, as applicable to agriculture, can be properly introduced into elementary schools. The subjects are arranged in a connection so natural, and treated in a style so plain and simple, that any child who is capable of reading and understanding the English language, may readily acquire a knowledge of the contents of the book. We believe the introduction of this work into the schools of this country, is destined to effect an incalculable good. From its pages we believe the youth will receive an insight into the *arcana* of nature, which cannot fail to stimulate him to investigations from which the happiest results will flow. Habits of thought and reflection will be induced, by which the business of agriculture will be more thoroughly understood, and not only practiced with greater pecuniary advantage, but the mind of the farmer will become expanded, and his labors at once lightened and rendered pleasant, by the aid of philosophy.

In saying that this book is adapted to children and youth, we would not be understood as intimating that people of mature age would not be largely benefitted by it. On the contrary, we think it should be in the hands of every farmer. Many would find here an explanation of important scientific terms with which they may not be familiar, while *all* will find it a very convenient manual of reference.

We shall recur to this subject next month, and furnish more extended notice of the work. Published by ERASTUS H. PEASE, Albany. Price 18¾ cents.

AMERICAN QUARTERLY JOURNAL OF AGRICULTURE AND SCIENCE—conducted by Dr. E. EMMONS and Dr. A. J. PRIME. The first number of this work has been issued. It is a neatly printed octavo of 184 pages, consisting mostly of original articles. We have not read the whole of the contents with the attention which we intend to devote to them, but are nevertheless able to say that several of the articles are of a highly valuable character, and ably written. Candor, however, obliges us to state that on some points which are introduced into the work, we are compelled to differ in opinion from the respected editors. We allude particularly to the discouragement of "root culture," and the expression of "regret," by the editors, that this branch of husbandry has been so much encouraged by our "agricultural writers." We mention this in no captious spirit, or desire to find fault, but simply because we deem the subject an important one to the interest of the farmer. We have not now room to discuss the matter, but may recur to it again.

The Review, we are glad to hear, is well patronized, another evidence that a spirit of agricultural inquiry is deeply awakened; and we trust that this journal will be an important aid in dispensing the light which is so earnestly sought after. Published in this city, by the editors, at $3 a year.

SCHOOL DISTRICT LIBRARIES.

We respectfully invite the attention of county and town superintendents, to the subject of the introduction of an agricultural book into our school libraries. The Cultivator for the year 1844, contains much matter which we trust will prove of great value to most of the readers of the school libraries of the state, a class of persons probably more than three-quarters of whom are engaged in agricultural pursuits. We are most decidedly of the opinion that a larger share of reading, directly relating to the occupation which employs nearly all the time of so large a portion of our citizens, would be in the highest degree appropriate and beneficial.

Among the contributors to the vol. we speak of, there are more than *three hundred correspondents*, almost all of them practical farmers, and a large share residing in our own state, many of them distinguished for their great success in the cultivation of the soil. The matter thus furnished, not only possesses great practical value, but embodies the latest established improvements, and is peculiarly fitted to our own region of country. In addition to this, the *amount* of matter furnished for the price, becomes another strong inducement for the general introduction of this volume into school libraries. There is six times as much reading as in one volume of Harper's School Library, of average size, and illustrated by more than one hundred handsomely executed wood engravings. The volume is furnished, well bound, for $1.25, and we respectfully solicit the attention of all concerned or in any wise interested in these libraries, to this cheap and effectual means of imparting agricultural knowledge.

EXPERIMENTS IN PLANTING.

THE advantages of free admission of light, and free circulation of air, to the growth of plants, are in a good degree obvious to persons of any experience in agriculture. So important are these influences to Indian corn, that an advantage is known to result from giving the widest space to rows running north and south. This more readily admits the light and heat of the sun, than rows running in a contrary direction. It has been suggested that planting corn and potatoes in alternate rows, or in alternations of two rows each, would give a greater aggregate product for a given extent of land, than if each crop were planted entirely by itself. Experiments relative to this point have been made in Massachusetts for a few years past, under the direction of the Plymouth County Ag. Society, and the results so far, indicate considerable advantage in favor of the mode of alternate planting. Mr. Nathan Whitman, who received, for an experiment of this kind, made last season, a premium of $15, planted half an acre with corn alone; from this was harvested 42 43-75 bushels; half an acre with potatoes; from this was harvested 136 7-56 bushels; and half an acre in alternate rows of corn and potatoes; from this was harvested 22 50-75 bushels of corn, and 79 40-56 bushels of potatoes. In this experiment there appears to have been a gain in mixed planting of ten bushels of corn to the acre,

and twenty-six bushels of potatoes. Some experiments reported to this society in former years, we believe showed about the same results.

EFFECTS OF ASHES.—Mr. PETER CRISPELL, of Hurley, Ulster county, informs us that he raised last year, on one acre of land, three tons twelve hundred and eighty pounds of hay, at one crop. The hay was in merchantable condition and of good quality, as will appear from the fact that it was sold at eight dollars per ton, and was all weighed on the scales. The soil where this crop grew, was a dry, loamy alluvion, and bad been in grass many years. Last spring Mr. C. spread on a hundred bushels of leached ashes to the acre, which cost eight cents per bushel. The ashes increased the quantity of hay nearly one-half, and from former experiments in the use of them, it is known th t their effects continue for several years.

Mr. Crispell has made some trials with both leached and unleached ashes, and the results, in his case, would seem to show that the unleached are not more valuable than the leached. He thinks that ashes which have laid some time after being leached, are much more valuable than when they are applied immediately after leaching. He informs us that this is also in accordance with the experience of several of the Long Island farmers with whom he has conversed. We are aware that results do not appear to have been uniform in regard to the action of ashes, but we have heard the same views as are held by Mr. Crispell frequently given by other farmers.

CULTURE OF MUSTARD.

Several subscribers, among which is our friend C. J. SANDERS, Esq., of Lexington, Ky., have requested an article on the cultivation of mustard. Our own experience in its culture is very limited. Several years ago we raised a small crop, and the method we practiced was as follows: The soil was a sandy loam. The seed was sown in drills, with a turnep drill; the rows about sixteen inches apart. The spaces between the rows were kept clean by the hoe. This was the white mustard. The black variety is larger and requires more room.

Mr. James H. Parmelee, of Duncan's Falls, Ohio, raised last year, twenty-seven acres of the black or brown mustard. We gave an account of this crop in our last volume, page 354. It appears that it was planted in hills one foot apart one way and two feet the other, the crop being well worked during the season. The twenty-seven acres produced, by Mr. P.'s account, 457 bushels, or nearly seventeen bushels per acre. It may be sown as soon as the ground is in proper condition to work.

COTTON CULTURE IN ALABAMA.

EAST INDIA COTTON.—We give the following extract from a private letter of our esteemed correspondent, Dr. CLOUD, of Macon county:—"Enclosed I send you a small sample of a variety of *East India* cotton, which grew at my place the past season. The stalk from which this sample was taken attained the height of thirteen and a half feet, had on it at frost sixty-two bearing limbs, and measured fifteen inches in circumference between the two first limbs from the ground, and contained at one time, about the first of September, upward of twelve hundred bolls, blooms and squares! My opinion is that this variety promises to make a great produce in our climate. The stalk now stands in my yard as its own witness. When other cotton was selling at four and half to five cents per pound, last fall in Montgomery, I was offered fifteen cents per pound for a sample of this. It is the true green seed, the natural tendency of our climate and soil, and therefore the kind upon which our improvements should be made."

ALEXANDER MCDONALD, of Eufalla, Alabama, writes us in reference to the unprofitableness of the cotton crop, as follows:—"Our most valuable and important southern staple has gone down so low as to pay but poorly for its cultivation and preparation for market; but the present low price of cotton will work its own cure. We will, in all the south and southwest, be taught that most important and useful lesson, that it is the true interest of the farmers throughout the cotton growing sections, to raise a full supply of provisions, and after they have done that, to divide the balance of the labor between cotton and other valuable articles. I will mention two at this time, to wit, wool and silk. There will no doubt be great falling off the present year, 1845, in the amount of cotton planted, as it is the greatest folly imaginable to make cotton to purchase any article that the soil and the climate afford, to say nothing of the imperious necessity as well as propriety of our raising our own provisions of every kind."

Mr. McDonald takes particular note of all his farming operations, and informs us that his memoranda for 1844, amounted to 183 pages. He also informs us that he has produced a good supply of provisions, in addition to the cotton crop, which latter he says is the finest article he has ever seen.

HORTICULTURAL ITEMS.

(Condensed from the Gardener's Chronicle.)

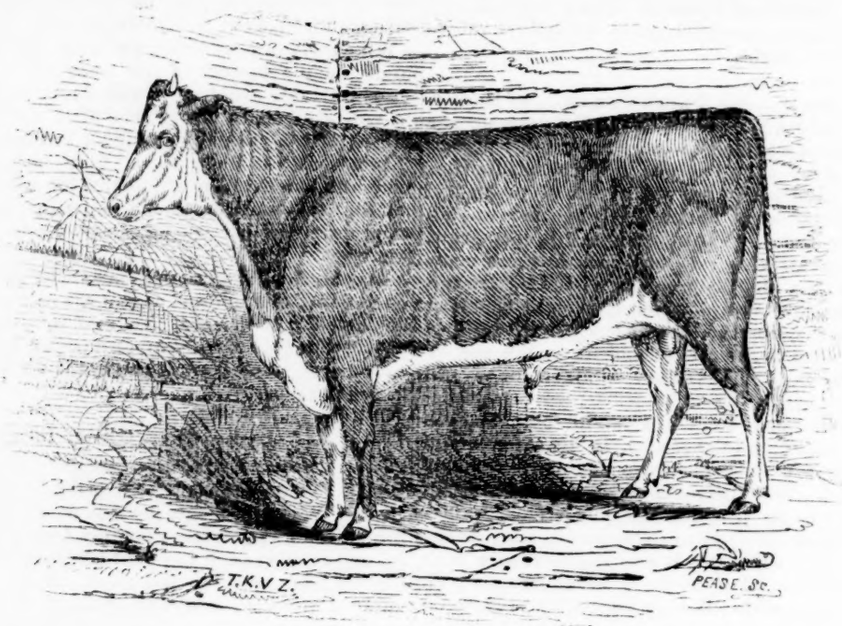
GAS TAR *vs.* RABBITS AND MICE.—William May, of Bedale, Yorkshire, says he has tried this substance repeatedly for some years upon the fruit trees in his nursery, and in all cases it has kept off hares and rabbits, without the least injury to the trees. But it is necessary to apply it in winter while the trees are in a dormant state, as at any other season it destroys them. (Would it not be a simple and efficient remedy against the nibblings of mice, so often destructive to our fine young trees in winter?"

AUTHORITY FOR NAMES.—During some discussion in the agricultural part of the Gardener's Chronicle, dictionaries having been cited as authority, the following facts are stated:—Melocoton (the name of a peach, generally written Malacotoon) is evidently from Malum cotoneum of Pliny, which was our quince; it has hence been applied to certain yellow peaches, from their resemblence in color and skin, to the quince. A correspondent of the paper says, "In some fruit catalogues, I find it changed to Melocoton and Mallacoton; in English and German dictionaries, I find the original pure Melocoton, but for an explanation I must turn over to Melicotony, where I see it translated "a Quince," "a Peach." Not satisfied with this information, I referred to a Spanish and English dictionary, where in the mean time, it had grown into "a peach tree ingrafted in a quince tree!" (This is about equal to Virgil in his second Georgic, where, leaving fact, and running wild into imagination, he speaks of walnuts engrafted on arbutes, apples on plums, and beeches on chestnuts; adorns the wild ash with the white blossoms of the pear, and represents swine crunching acorns under elms. In keeping with the whole of this, he finally gives life and sense to his engrafted trees, making them wonder at the unknown leaves and fruits with which they are loaded. Equally sensible, but infinitely less poetical, are the stories which go the rounds of the papers every few years, of budding peaches on walnuts and on willows, &c.)

COVERING FOR FLOWER BEDS.—It is an excellent plan to cover clumps with moss, to prevent the soil getting dry in hot weather, for which purpose it may be skinned off in large patches, and neatly laid down, which gives it a fine appearance. By occasionally watering it in dry weather, and especially shaded by shrubs and trees it will keep fresh for the season.

ASPARAGUS.—A correspondent says, "I have an asparagus bed, 30 feet by 5 feet, on which I put one hundred weight of salt, about the middle of March, last year, and also this year. The increase of crop, both with regard to size and number, is most extraordinary." In another place, a case is given where too heavy and often repeated a dressing of salt, destroyed the asparagus, though the precise amount of this over dose is not given.

SCIENTIFIC WORDS.—The terms *sporæ*, *sporulæ*, *sporidia*, &c. have either been applied synonymously or vaguely by different authors. The more modern practice appears to be, to use *sporulæ* for the ultimate granules, analogous to seeds; *sporidia*, for the cases or vessels containing them; and *sporæ* for an additional covering, which sometimes includes several *sporidia*.



HEREFORD BULL-CALF "POMARIA."—(Fig. 00.)

THE above is a portrait of POMARIA, the bull-calf which received the first premium, Class first, of the New-York State Agricultural Society, at the exhibition at Poughkeepsie, 1844. He was bred by Messrs. CORNING and SOTHAM, and, together with a superior heifer calf of the same breed, has been purchased by A. G. SUMMER, Esq. of Pomaria, South Carolina. Besides these fine animals, Mr. SUMMER puschased here, eight South Down ewes, and six Cotswold ewes and a buck-lamb. The sheep were all very good—both lots showing the peculiar excellencies of their respective breeds. The South Downs were from Mr. C. N. BEMENT, and the Cotswolds from Messrs. CORNING and SOTHAM. These animals left here in November last for their southern destination, and we have since learned of their safe arrival. We have no doubt they will prove an important and valuable acquisition to that section of country.

ANALYSIS OF KENTUCKY SOIL.

Tired Fields soon recover when in Grass--Rotation of Crops.

TO THE EDITOR OF THE CULTIVATOR.—I analysed many specimens of Kentucky soil last spring. They were taken from land worth about fifty dollars per acre, in Clarke county, fourteen miles east of Lexington. I will send you three specimens.

No. 1. was taken from land that produced the fall previous one hundred and forty-one bushels of shelled corn to the acre. This field has been in cultivation about fifty years, and had twice been in clover, each time two years. The last time it was in clover I had hauled upon it about fifty (one horse) cart loads of rotten chips mixed with spent ashes, to the acre, from the place where most of the wood for family fires had been chopped for the last fifty years. The ash hopper stood near, and after the potash was extracted, the spent ashes were thrown with the chips.

No. 2, has been cultivated about the same length of time; has been once in clover, and once in blue grass and clover; five years altogether in grass; had cattle fed all winter upon it whilst in grass; produced about one hundred bushels of shelled corn to the acre.

Both fields were planted with large corn, three feet nine inches by three feet six inches apart in the hills, and were thinned to four stalks in a hill. The season was uncommonly favorable to the production of corn.

No. 3, was clay, taken from a hole three feet below the surface.

	No. 1.	No 2.	No. 3.
Soluble, vegetable and other matter,	7	6	0
Insoluble vegetable matter,	12	12	0
Alumina,	17	6	24
Magnesian lime,	21	25	26
Phosphate of lime,	3	2½	3
Iron, (red oxide, shot ore, gravel)	7	4	12
Quartz, flint and sand, very small fragm'ts,	30	41	33
Loss,	3	3½	2
	100	100	100

Magnesia constitutes about one-fifth of the lime, and the clay has in it eight per cent of potash. It is a general impression here that there is no sand in our soil, and to find one-third sand is truly astonishing. I could not believe it at first, and added potash to some of it, and with a blowpipe made glass. I took, subsequently, two hundred and twenty-nine parts of the sand that had resisted nitric, sulphuric and muriatic acids, and melted it with potash, and afterwards found that one hundred parts of it was iron, lime and magnesia, so there is not as much sand as my tables show.*

It is truly astonishing how soon our old fields, when worn down by long continued and excessive cropping, regain their primitive fertility when sown in grass. The above analysis shows that all they want is vegetable matter. And even on hill sides, where all the soil is washed off, so as to expose the clay, as soon as there is added vegetable matter, it becomes productive again, and the above analysis of clay shows that it has all the elements of fertility except vegetable matter.

My most productive field, No. 1, did not produce more than thirty bushels of corn to the acre eleven years ago, when I first got possession of it. It has been improved mostly by clover and hauling manure upon it. No. 2, was likewise exhausted so that it would not have produced more than thirty bushels of corn to the acre. It has been improved by clover, blue-grass and feeding stock upon it, so that they deposited their manure in the field where it was wanted.

To restore an exhausted, or rather tired field, it should be sown in grass, and stock fed upon it during the winter months. Hogs fattened upon tired land enrich it very much. It may be true that they fatten faster in a close pen, but when they are fed on ground that is intended for cultivation they will greatly increase its productiveness. One hundred hogs fattened upon ten acres of worn land

* This experiment was made from sand after it had resisted the above acids. The lime, magnesia and iron, in this last experiment, were about in the same proportion as in the others. This reduces the sand to a less average than twenty per cent, and a part of this was incombustible vegetable matter.

will increase the produce of that land in the next corn crop at least two hundred bushels. This being the case, how very wasteful to fatten hogs in a little pen by the side of the creek, branch or pond, where all the manure is washed into the water and is wasted. I do not speak of those who scrape up their manure and haul it upon their fields. They do not live about here. Very few of our Kentucky farmers have as yet engaged in hauling out manure. And why should they, when by a proper rotation of crops, and feeding upon the fields whilst in grass, they may make their manure so much easier in the fields where they want it?

When a field is much exhausted it should be kept in grass four or five years. In this case there should be sowed three quarts of clover seed, the same quantity of timothy *(Phleum pratense)* seed, and half a bushel (in the chaff) of blue grass seed to the acre. If the field is not much exhausted, two years will be a sufficient time in grass, and the blue grass seed may be omitted. The grass may either be fed off to stock or mowed. If the latter, the hay may be fed with other food, on the same ground, to stock cattle. The soil will improve much faster where stock are fattened than where they are only fed so as to winter them. The ground is enriched in proportion to the richness of the food that is fed thereon.

When the grass is plowed up, two crops of hemp may be taken, a crop of corn, oats fed down to hogs, corn again, wheat or rye followed by grass sown upon it in the spring. Thus in an eight year course, giving two crops of hemp, two of corn, one of oats, one of wheat or rye, and two of grass. Land will improve under this course if stock are fattened upon it the two winters it is in grass.

Another shorter rotation is two crops of corn, rye fed down by hogs, grass seed sown upon the rye in the spring after it is sown, grass two years with stock fed or fattened on it during winter. Land will also improve under this course, and the second crop of corn will be better than the first, in years equally good. In the first case also the second crop of hemp will be better than the first. The soil will be rotted the second year, and there will be much less labor in cultivating the ground in corn.

I could never get grass to come well when sowed with oats, if I put on a sufficient quantity of oats to insure a good crop. Wheat is often injured by the early start of the grass in the spring, producing the rust in it. Therefore I prefer putting in my grass seed with the rye crop. I have had clover come very well, however, when I would only put in a small quantity (half a bushel) of oats to the acre.

SAML. D. MARTIN.

Colbyville, Ky., January, 1845.

RESULTS OF EXPERIMENTS

In the Culture of Indian Corn, Wheat and Potatoes.

MR. L. TUCKER—Last spring I made an experiment on my corn crop, with compost prepared in the following manner: Took twenty-five bushels leached and unleached ashes, ten bushels plaster of Paris, sixteen bushels lime, and about fifty bushels fine sheep manure, mixed the whole together on the barn floor, and dissolved the lime with beef and pork brine. After thorough mixing, the compost heap had the appearance of the grey plaster. I put one handful in a hill of corn until I found I should not have enough to go over the field, which was about twelve acres. I then reduced the quantity to one handful to two, and even to three hills.

The field selected was the poorest on the place, and I was told I could not possibly have over half a crop of corn. It had been in wheat last, and laid out one summer without clover; hence the prospect was not very encouraging. Some of my neighbors rather quizzed me about the compost; but when husking and hauling-in time came, they were amazed. The corn grew surprisingly. It was very tall, although the cut and grub worms and blackbirds worked on it to such a degree that I replanted at least one-third of the field about the 20th May. The crop was as good as any in the neighborhood, if not better—hauled twenty-six wagon loads of seventy bushels each. Some of the ears were so high upon the stalks that my hired man of six feet could not reach the top of the ear. The corn planted was the large and small yellow, and was all hard. Where the handful of compost was put, was the best corn; as the quantity was diminished the difference was perceptible.

I have tried an experiment on two bushels wheat sowed. When it is harvested, I will communicate to you. I also tried an experiment on my last year's wheat to prevent smut. One portion I washed and soaked with salt brine, dried with quick lime; another portion I washed and dried with lime; and another lot spread out, made wet with a watering can, and dried with lime. The former was almost clear from smut, whilst the second and third lots were considerably smutted—the second not so much as the last.

I put ashes and plaster on my potatoes when planted, and so far they prove good.

CHARLES COLFELT.

East Kishacoquillas Valley, Pa., January, 1845.

PRODUCTS OF THE DAIRY—NO. III.

WE intimated, in closing our remarks upon this subject last month, that we should make some suggestions as to "the means which should be adopted to secure the greatest increase in quantity and improvement in quality of dairy products." Before attempting this, however, let us first see what is the quantity now actually made in most of our dairies. Upon this point we have very little positive information, and must rely mainly on the opinions of dealers and persons who are well acquainted with the dairy business. Our intercourse with farmers and dairymen has enabled us to judge perhaps with some degree of correctness, especially as we have hundreds of times asked the question, "How much butter or cheese do your cows average in the season?" To this question we have received various answers, some putting the amount as high as 200 lbs.; others at 150 lbs.; and many nearly or quite as low as 100 lbs. of butter. We suppose that two and a half pounds of cheese are about equivalent to one of butter, so that the range in the average of cheese dairies would be from 250 to 500 pounds. Our own conviction, strengthened by the opinion of a number of dealers in dairy products with whom we have consulted, is, that the average production of butter cannot exceed 125 lbs. per cow. The average product of cheese cannot much exceed 300 lbs. It is not asserted that these are the actual average products, but the amount here assumed will be found, on a careful inquiry, very nearly correct. The extremes, as before stated, are far above and below this amount.

For the purpose of showing what may be done with good cows and good management, we now propose to give a few statements which have come under our notice, or been communicated to us by persons engaged in this business, and to give our readers an opportunity of judging correctly in the premises, we shall accompany the statements, as far as practicable, with an account of the measures pursued to arrive at the results spoken of.

We will first give some extracts from the report of the committee on cheese dairies to the New-York State Agricultural Society, February 13th, 1845. From that report we learn that Mr. Abraham Hall, of Floyd, Oneida county, has made the past season, from forty cows, 23,427 lbs. of cheese, and 200 lbs. of butter. This is an average of five hundred and eighty-five and five-eighths pounds of cheese per cow; and if we add the butter, we have equivalent to 598 lbs. of cheese per cow. To accomplish this, Mr. H. informs us that he has 100 acres of pasture, (in addition to the cows, four horses and three dry cows are kept,) of good quality, though not very abundant, and about fifty-two acres of meadow. Cows are supposed to consume about two and one-fourth tons of hay each, as they are fed in stormy weather in summer as well as a full supply in winter. Has not fed sixty bushels of grain to cows. The whey was all fed to twenty of the oldest cows, and Mr. Hall has no doubt that the twenty cows to which the whey was fed have made full 700 lbs. each. Cows come in from the first of April to the first of May. They have access to salt at all times, which is considered important. The cows are well selected, regularly milked, and attended to in every respect. The

cheese is made with great care and attention, and brings the nighest price in market, having been sent to Philadelphia for several years past, but the last year a considerable portion of it was shipped to England. There will hardly be spare room in this article to give the details of the process of manufacture. We hope to hear more from this dairy next year.

From the same report to the State Society, we learn that Mr. Alonzo L. Fish, of Litchfield, Herkimer county, has made during the last season, previous to the 17th of September, an average of 592 lbs. per cow; and Mr. F. estimates the quantity for the season at 700 lbs. The average, the last three years, from twenty-five cows, has been 590 lbs. Mr. Fish also feeds the whey to his cows, and about the first of August commences feeding cornstalks, raised broadcast, once a day, to keep up a full flow of milk. While giving milk in winter, the cows are fed four quarts of shorts or one peck of roots per day. The dairy furniture and fixtures, buildings, &c. are convenient, and all well attended to. Here is an annual product of $41.40 cents from each cow for three years in succession; a handsome product truly in these times of low prices. Mr. Fish received the first premium from the State Society for the best managed cheese dairy.

Mr. Elisha Baker, of Bridgewater, Oneida county, made in 1843, between April 15th and December 1st, 10,000 lbs. of cheese and 1,000 lbs. of butter, making an average of 500 lbs. of cheese and 50 lbs. of butter from each cow. In addition to hay and grass, the cows were fed two quarts of oat-meal per day, mixed with the whey from the dairy. The cheese was sold at five cents and the butter at fourteen cents, making thirty-two dollars per cow.

We have thus glanced at some of the *large stories* from cheese makers, which are sometimes doubted, and often pronounced false by those who have no idea that any one else can make more than they have done, and are unwilling themselves to make even an effort to go beyond the old mark. These cases might be multiplied to almost any extent, had we room. Suffice it, however, to say, that there cannot be the slightest doubt of the correctness of the foregoing statements, and that the amount stated was actually made.

Let us now glance for a moment at the causes which have produced these results; results so different from those in common dairies. In the first place we find a good selection of cows, every one of which is capable of making as much as the best in many of our dairies. Where is the dairyman who has not in his yard, cows which will make nearly twice as much as others kept in the same manner, and treated in precisely the same way in all respects. This has been our experience, and we have no doubt that it is so almost every where. Now, if we select for our full number, cows of this character, the product will be at once greatly increased, without any additional allowance of feed. But where are these cows to be had? All farmers cannot have the best, it is true, but nearly all may have better animals than they do, by proper selection, if purchased, or by more care in breeding, if raised by themselves. The truth is, very little attention has been given to the breeding of dairy cows, and too many dairymen depend on keeping their number good by purchases from *droves*, which are picked up in sections where little attention is given to dairying, and driven into the dairy districts to sell. Many of these are good animals, and many of our dairymen are good judges of cows, but we often hear them complain of the difficulty of purchasing good cows. We must raise more heifers expressly for the dairy, with direct reference to their milking qualities. But we have been led from the legitimate train of our remarks, to glance at the subject of breeding dairy stock, which we have not time to pursue.

Cows, to produce large quantities of milk, must have warm, well ventilated stables, and a full supply of suitable food. So important is the first point considered, that very few farmers now allow their cows to remain in the yard in cold weather, and when they are secured in good stables at the first approach of uncomfortable weather, and kept warm and well fed until they get a full bite of grass in spring, they will hardly fail to remunerate their owners for the extra expense. There can, however, be no extra expense in point of fact, for cattle kept warm will consume far less than when exposed to the inclemencies of the weather, in this severe climate. In the cases of Mr. Hall and Mr. Fish, above referred to, very little grain or roots were fed, the principal addition to the usual food being the whey, instead of feeding it to hogs as is usually practiced. These gentlemen, with many others with whom we have conversed, are of opinion that as many pounds of cheese may be made from feeding the whey, as of pork, while the value of the former is usually greater than that of the latter. Mr. Baker fed about two cents worth of oat-meal, besides the whey. For this he doubtless was well paid.

The great secret, however, in managing cows, consists not so much in the amount of food given as in the regularity with which it is given, and the care and attention bestowed upon them at all seasons of the year. They should of course be fed liberally in winter, and more especially in fall and spring, and have, during summer, an abundance of suitable pasture, and plenty of pure water and salt. They should be milked regularly and quickly by the same person every day, if possible, and treated with *gentleness* and *civility*, (an important feature in dairy management, which many persons have not yet learned,) so as not to worry and disturb them, either in driving or in milking.

We have given the product of several cheese dairies in which a little extra feed was allowed, and for the purpose of showing that large products may be obtained without extra feed. We now propose to give the product of a few butter dairies within our acquaintance, assuring our readers that we are acquainted with the individuals on whose statements we depend, and that there cannot be the slightest doubt about their correctness. We do not intend here to give extravagant accounts, but such as will show what may be done by good care and moderate feed.

Mr. Porter, of Western, Oneida county, has a dairy of twelve cows and three heifers, one of them three years old, and two of them two years old. From this dairy he has made the last season, 2,600 lbs. of butter for market, besides supplying a family of seven to nine persons during the year. This, it will be seen, is 173 1-3 lbs., and if we add the amount consumed in the family, the quantity can fall very little, if any, short of 200 lbs. Mr. P. says—"We winter our cows on hay principally. After they come in, in spring, we allow them three quarts of oat-meal each per day, until they are turned out to grass. In my opinion the whole secret about making a large quantity of butter is to keep the cows well through the winter; keep them in warm stables, and feed a little grain in spring. They must of course have an abundant supply of pasture, and an eye must be had to the management of the milk and butter." This may be set down as a good yield.

Mr. Timothy Wilcox, of New-Hartford, informed us early in November last, that he had made, up to that time, from five cows, 1,135 lbs. of butter. Mr. Wilcox expected to make up the amount to 1,200 lbs. before the close of the season. Besides this, milk was used in the family when wanted. One of these cows was two years old, one three years old, another four, and the others older. *Nothing but hay and grass was fed during the year.* One remark made by Mr. W. struck us as important. It was this: "I have milked these cows every time myself." Here, in our judgment, lies a part of the secret. (We hope when Mr. W. sees this, that he will go at once to the post-office and subscribe for an agricultural paper.)

Mr. Brainerd, of Western, has made from sixteen cows, previous to the 15th of November, 2,720 lbs. for market, besides supplying a considerable family. Here we have 175 lbs. from each cow. This dairy was also kept on hay and grass alone, (except about 150 pumpkins in the fall,) but they were well fed and well attended to.

It is unnecessary to multiply instances, but we will say, in addition, that our friend Lewis Eames, of Lee, has uniformly made from 160 to 180 lbs. for market annually. The dealers in butter all agree that where such large quantities are made the quality is uniformly good; better than when small quantities are made. Good attention to

one branch secures, in a great degree, success in the other.

The remarks made in regard to selection of cows, and their management for cheese dairies, apply equally well here, and we can only say that to equal, and even excel, the individuals we have named, farmers have only to procure good cows, give them good feed, both summer and winter, see that they are at all times protected from cold and stormy weather, have plenty of pure water and free access to salt, are regularly milked by careful hands, and finally that the milk and the cheese or butter, as the case may be, are properly managed. These constitute the essentials in dairy management—essentials which may be attained in almost every particular by all dairymen. It is easy to see that while, in the usual method of managing cows, very little profit can be realized, the results arrived at by the individuals named, (and there are scores of similar cases,) cannot fail to afford a very handsome profit from their labor. It costs scarcely any more to keep a stock of cows in good order throughout the year, than to let them get poor, and then by extra feed raise them again to good condition. Now, we hold that three-fourths of the dairymen in this country may, by simply having warm and well ventilated stables, feeding and milking regularly, and treating their cows gently, increase their products considerably, without one dollar of additional expense; and if a few bushels of grain or roots be added in the winter and spring, the *profit* will be greatly increased. Of the method of managing the milk and manufacture of butter and cheese, we have not room to speak in this article, but will endeavor to speak of some points connected with that subject hereafter. The cases to which we have alluded are not extremes, but are frequent in many parts of the State; yet not one in one hundred reaches the amount named in these statements.

The season for commencing dairy operations will soon arrive; indeed, the time for giving increased attention to dairy cows is now at hand, and we appeal to all, so far to consult their own interest, if they have no mercy for their animals, as to look well to the care of their stock during the coming spring. We also respectfully suggest to our agricultural brethren, the propriety of endeavoring to increase the products of their dairy, as well as of all crops and productions of the farm, the coming season. We *can* improve in these as well as other branches of agriculture. Shall we not say that we *will* improve in these things? Let us not be disheartened by the assertion, so often thrust in our faces, that we now raise more than we need of agricultural products. Or if this is really so, let us keep fewer cows, and make from them the same quantity which we now make from a greater number. And so with our crops; let our motto be, "the greatest amount of produce at the least expense." Profit is our object, and how shall we secure it except by cheapening the cost of production?

E. Comstock.

KNOCKS ON A FARM.

Mr. Editor—I know that you will have considered me, long ere this, "slack concerning my promises;" but each day has furnished some new pledge that "to-morrow" you should have some account of my success and mishaps in my new vocation.

The first of May last found me in possession of a farm of about one hundred and eighty acres of land in this pleasant farming district, with about as much knowledge of my new calling as most plowmen have of a special demurrer. Yet my former experience had taught me that patience and perseverance would overcome almost any difficulty; and relying on these supports I went to work, and, as you might expect, received many "*knocks*," the teachings of which will be long remembered. There was growing on my farm, when I took possession of it, twelve acres of wheat and six acres of rye. In order that the crop might be good, the seed had been procured at the west, and at a high price. A part of the crop was sown on greensward turned under, the soil being low and moist. The result, when harvest came, was forty-two bushels of ordinary wheat and eighty-eight bushels of chess. As soon as the half-bushel had shown me the quantity of each, I seated myself in my big arm chair, placed my feet on the office table (attitude is everything) and commenced looking over the list of premiums for the next State Fair at Poughkeepsie, supposing, of course, that my chess crop would entitle me to number one. But finding no bounty offered for my crop of chess, I consulted the back numbers of the Cultivator (and these have been my indispensable oracles) to find some information as to the quality of my abundant harvest. While, however, but little light was afforded by the treatises, much amusement was enjoyed from the sharp controversy which has been carried on among the agricultural community on the "transmutation of wheat"—the "book men"* claiming the transmutation of wheat into chess to be a violation of the laws of nature, and the practical farmers maintaining that the severity of winter changes wheat into chess. One thing I know, my predecessor sowed good wheat and I harvested good chess; and the best explanation is found in the Book that says: "Thou sowest not that body that shall be, but bare grain; it may chance of wheat or of some other grain."†

I cannot, in justice, omit here to recommend a fan-mill made by J. T. Grant & Co., of Schaghticoke, Rensselaer county. It removed all the chess from my wheat, and has cleaned thoroughly rye, peas, timothy and clover seed; in short all the grains and seed ordinarily produced on a farm have been entirely cleansed from their impurities by this mill. I was very careful to examine the various patterns which were offered for sale in your city and elsewhere, and to witness their operation; and I have impartially compared the work of my mill with that of the mills used by my neighbors, and I must say that Mr. Grant's mill is superior to all which I have seen, in the simplicity of its construction, the ease of its revolutions, and the perfect manner in which it performs its work. It is the most finished agricultural implement which I have ever seen, and has deservedly taken the first premium at our state and county fairs.

My corn was planted early, and finding that it did not come up, I examined the hills and discovered in more than half of them two or three small white worms in each kernel, gnawing at the very chit. A second planting escaped the insect, and gave an ordinary crop. Much of the first planting in this section of country failed, and a second was required.

The barley harvest has yielded the best returns, being worth six shillings per bushel, while oats were quoted at twenty-eight cents, corn at fifty cents, and buckwheat at thirty-seven and a half cents.

I have made many efforts to learn to plow, but all my lots had a slight sprinkling of stones, and the plow would jump out, and before I could enter it again the team would be far from the furrow. But I consoled myself with the reply which the boy made to his father when reproved for making irregular furrows: "Never mind," said he, "it has all got to be plowed." More practice another season will improve my skill, they say; at all events it shall have a fair trial.

Yours respectfully,

Ballston Centre, Jan. 20, 1845. B. P. Learned.

Honey is, according to Mr. Milton, who has lately published a treatise on bees in England, a universal specific, and among its other valuable properties, he declares that it prevents consumption, and states that that destroyer of human life is not known in countries where honey is regularly taken as an article of food. Those who have less faith in the specific, may perhaps attribute the cause to difference of climate rather than to honey. The Italian singers, it is also affirmed, are greatly indebted to honey, but their practice is to sharpen it with a few drops of acid, though they sometimes take it in a pure state.

* This is not altogether fair. We have carefully looked over the old controversy in the Cultivator and Genesee Farmer, and find that every writer on the negative side of the question, was, to our certain knowledge, strictly a *practical farmer*.

† Our correspondent should have finished his quotation. It reads thus: "And that which thou sowest, thou sowest not that body that shall be, but bare grain, it may chance of wheat, or some other grain: but God giveth it a body as it hath pleased him, *and to every seed its own body*."—Cor. xv. 37, 38.

NOTES OF TRAVEL IN THE WEST.

BY SOLON ROBINSON.

January 1, 1845—My old acquaintances, the Editors and readers of the Cultivator. I hope will be pleased to see that I have risen with the sun, who shines forth this morning with all the beauty and much of the warmth of a May morning, not only to wish them a single "happy new year," but with the intent of devoting many weeks, perhaps months, in daily intercourse, and agreeable conversation.

In my card introductory, which I have printed for the occasion, I announce myself as "Traveling Correspondent of the Cultivator," and in that capacity I hope to make my notes of travel, as I proceed through the South Western States, somewhat interesting to both Eastern and Western readers.

So far, this has been a remarkably mild and pleasant winter; almost without snow, and no very severe cold weather; and now the warm sun bids fair to carry off the little ice already formed. Bad weather for the growing wheat, which does not look so well as it did last year, and so far as my observation extends, there are not as many acres growing.

Now, Messrs Editors, and you my dear old friends who have so often told me that you delighted to read my letters from the West, let me in fancy seat you by my side in my buggy, wrap you in Buffalo skins to protect you from the prairie blast, give the word to a pair of excellent mares, (by the bye, I always prefer mares for work,) and we will leave the home of your old friend upon this new day of a new year, and in the course of our long ride, we shall see many things that will be new and strange to you as well as me. The top of the ground is slightly thawed, and has the appearance and consistency of a first rate article of "paste blacking," ready prepared for use; and although we may get an over supply on coats as well as boots, be not alarmed; it will "rub off when it gets dry;" and even if it did not, it will not give us a very singular appearance, for in this respect, all men (travelers) are equal.

The first object of importance that meets our view, is a new church, crowned with the cross, that tells us that we are in the midst of a thriving settlement of Prussian Germans, thousands of whom are annually occupying the tens of thousands of vacant acres of land in this country. They are generally men of but moderate means, and content themselves with second rate land, and conduct their farming operations upon a small and rude plan, and adopt the improvements in agriculture of their go-ahead Yankee neighbors with slow caution. Yet there are some things that we may learn of them. If they do not go over as much ground, they generally do it better. They almost universally use oxen instead of horses; and what is more, you will find their rude log stables plastered up with mud, so that they are as warm and comfortable as their own dwellings, and comparatively more neat; for it must be said that the inside of their houses often presents such an appearance in regard to neatness and comfort, as would be "shocking" to some of my down East lady friends, who look upon a log cabin at best, as a name synonymous with every degree of discomfort.

Eight miles from home, we cross the western line of Indiana, and enter upon the eastern borders of the great prairie State of Illinois, over hills, and through ravines and deep dells, that will give the lie to that preconceived idea that the dwellers upon our broad prairies, inhabit one vast level plain. This part of the State (Will county,) is thinly timbered, and dotted with farms, all of which have sprung into existence within the last ten years, at which time I knew it as one vast wilderness. I spent the night in the hospitable mansion of Dr. Hitchcock, *late* postmaster of "Crete," but who, like many others of the devoted friends of agricultural improvement, who never abused the franking privilege, but sometimes used it to advance that science, has been thrust aside to make room for a more active politician. I visited the Doctor some two years ago, and found him in a very small log cabin, standing upon an unenclosed waste of prairie; and now I find him in a snug frame house, surrounded by a large well enclosed farm. Most of his fence is laid straight, the ends of the rails fastened by short blocks, which he prefers as a saving of timber, (a very important item) to the common worm fence. I objected to this, as less substantial than worm fence, but he assures me that when well staked, and with heavy riders, the wind has no effect upon it, and being straight, he can plow closer, and thus give his fields a better appearance. His lady-like eastern wife, is just such an one as is calculated to make the "new home in the West" comfortable. I found the whole house carpeted with the most beautiful rag carpet I ever saw, all the work of her own hands.

The 2d of January, like the day previous, was another lovely day, for which I was thankful, as I had a dozen miles across an open unsettled prairie, which must long remain unsettled, unless cultivated without fence, or else by some as yet undiscovered method of fencing; for the settlements are already as much extended from the groves upon each side as circumstances will admit, and the experiment of sod fence, I look upon as a total failure. Twelve miles from Juliet, we strike the "Hickory Creek Settlement," one of the oldest in this part of the State, possessing a fine body of timber, good mill privileges excellent prairie, and many well improved farms, the new houses and barns upon which show a thriving Yankee population; there are but few orchards coming forward, and in many cases where houses are situated upon the bleak prairie, there is not a tree or shrub visible. This is a neglect that I cannot too highly censure. Neither can I too highly censure an almost equal neglect to make good roads through so good a country.

JULIET.—This town is situated upon the "Riviere des Planes," (a good sized mill stream,) 40 miles south-westerly from Chicago, and containing about 1,500 inhabitants, many of whom, are to all appearance, "hanging on" to the long deferred hope that the Illinois canal that follows the bank of the river, and divides this wide spread straggling village, will soon be recommenced, and restore them to that prosperity that originally built up the place, and in fancy made many rich, and in reality made more poor. The village is situated upon a most sterile limestone rock, covered with barely soil enough to sustain a little grass, and every thing around shows evident signs, that through this mile wide valley, once rolled Niagara's mighty flood, at that period of long past time before the waters had passed the northern boundary at the heights of Queenston, and the thunders of the great falls were as yet unheard and unknown.

One of the most creditable things that I can say of Juliet, or of her half and half dead and alive population, is that during the last summer one of her enterprising citizens, (the Hon. J. A. Mattison,) has put in operation a small woolen manufactory, containing at present four sattinet and one broadcloth loom and other machinery, all finished and operated in the best manner. By the way, I would here say to you that this good firm, fine homespun suit that you see I am dressed in, was colored and dressed at this establishment. As such manufactories are real blessings to this "to be" great wool country, I hope the proprietor will be greatly blessed in his undertaking.

After finishing some business that detained me 24 hours here, I set off in the afternoon of the 3d, to visit one of the largest farms that I know of in this part of the State, situated about 14 miles westerly, most of the way across open prairie. Unlike the two previous pleasant days, this was one that would give us an idea of what a "gentle prairie breeze" was like. The first two or three miles lay between the river and "bluff," a high bank of limestone rock, composed of flat layers from one inch to one foot thick, and affording a most inexhaustible supply of materials for building and fencing, but as yet little used for the latter. As I passed up a ravine through this bluff, and came out upon the high prairie, with the wind "dead ahead," and blowing most beautifully strong and cool, I almost wished myself again by my own warm hearth, and the enterprise that I have undertaken, committed to other hands, supported by a stronger constitution. Here, when the wind blew almost strong enough to start the hair off my horses, were situated several farms, miles away from timber, treeless, barnless, shedless and shelterless for cattle, which stood drawn up into the smallest possible dimensions, under the lee side of a rail fence, while the owner was perhaps complaining that "this is not a good country for cattle"

Passing a little grove, and less village, called Plainfield, on a stream called the Du Page, and upon which there are many fine farms, I struck out again upon the prairie, where I found a variety of what the people are pleased to call roads, none of which seemed to lead toward that point of compass that I thought I ought to go, and therefore I concluded that I would not follow either, and boldly struck off upon the trackless prairie just at sundown, for a four miles drive. Taking, as I have often done before, the wind for my guide, which unlike some friends at some other time, this time proved unchanging, and conducted me safely to my point, without accident, except a slight harness break, while performing that very common feat in this country, jumping a deep creek, before the era of roads and bridges.

After my cool ride, I met with a warm reception in the very comfortable cabin of Major Wm. Noble Davis, (Ausable-grove, Kendall county, Illinois,) whose farm is situated about 2 miles from that beautiful stream, the well known and oft described Fox river, and 40 miles from the great commercial point of all this country, Chicago. The Major, (I insist upon giving him his rather questionable title, as he as well as every body else hereabouts, insist upon bestowing upon me the title of "Judge,") located upon this lovely spot about ten years ago, and by the purchase of an "Indian Reserve," secured about 500 acres of timber, that is now worth from $30 to $50 an acre. To this he has added about 1500 acres of as fine rolling prairie as fancy could wish, about 1100 acres of which is under substantial rail fences, mostly divided into lots of 80 acres each, all having suitable watering places for stock, which in the shape of horses, hogs, cattle and sheep, particularly the latter, abound in proportion to the size of the farm. Indeed, I believe he intends in time to make a sheep farm that will produce an amount of wool that will make some of the down east 100 acre farmers look with wonder, and wonder if such things can be. He has one little patch of Kentucky blue grass, of 160 acres. He has as yet but one barn, but that is a most noble one; but let me tell you, his cattle and sheep are not under the necessity of lashing themselves to the fence to keep from blowing away, for he has erected "cheap sheds" enough to shelter every hoof. He intends in the course of a couple of years more to get the remainder of his prairie under fence and in cultivation or seeded down to grass, and then with a well fenced 1500 acre farm—well what then do you think he intends to do? why, then he intends to *build a house and get married*. For be it known, and ye down east marriageable girls take notice, that this Illinois grandee is not yet a *very* old batchelor, only 36, fine looking, full of life, and as soon as he can get a nice, "snug little farm" ready, will also be ready to give you a call. But not till after "the new house advent." For be it known to his thousand and one eastern acquaintances, that he now lives in a log cabin that would be a rare show to some of his Broadway friends.

Major Davis has introduced some fine improved horses, cattle and sheep, the benefits to the country from which, will be long felt by others as well as himself. He has also set an example in the way of fruit trees, well worthy to be followed. As I

have so many individuals to notice, I cannot of course, spend too much time individualising stock and improvements.

On Saturday, I intended to have gone on my way rejoicing, but who ever escaped from the Major with only a one night visit, (he studied hospitality in a southern latitude,) and that, connected with a slight indisposition, brought on by the strong lime water of Juliet, not only kept me over Saturday, but there also I took a Sabbath's quiet rest.

On Saturday afternoon, the Major drove me up to Oswego, 2½ and Aurora, 7 miles, two flourishing villages on Fox river, at both of which the river, as well as at numerous other places, affords the best of water power, and at the latter is one of the best finished flour mills of 4 run of stone in the State.

Here we visited a picket fence making machine. The pickets are sawed by a circular saw, out of boards, and then passed through a set of cutters that round and sharpen them, and are put in girts also bored by a machine, and these lengths are set up crooked like worm fence, without posts, being held at the corners by one of the pickets passing through each girt, and as it is sold at 75 cents a rod, will answer well to fence prairie, where rails cannot be had for a less cost But as it takes 14 rails to make a rod of as good fence, it is easy to calculate which kind of fence will be the cheapest. At present, while we cultivate so poorly, and do not average 10 bushels of wheat to the acre through a series of years, we cannot afford to pay 75 cents a rod for fencing, besides the cost of hauling and putting up, and then as most of us do, carelessly risk its being burnt by the annual fires that destroy thousands after thousands of rails every year.

Many of your Orange county readers will be interested to hear that I visited an old resident of that county, by the name of Townsend, who with several of his children, live in the same grove with Major Davis, and own about 3,000 acres of fine land. From Mr. Townsend I first learned that fowl meadow grass, which is one of the most valuable kinds that I am acquainted with for wet prairie, is indigenous to the country. By conversation with the old gentleman, I also became satisfied of what I had long believed, that what we call "blue grass," is a different article from what is known at the east by the same name. The eastern blue grass he thinks much the best. Neither of the kinds are profitable to cultivate for hay, but for fall and winter feed. particularly for sheep, exceedingly valuable.

I ought to have mentioned before, for the benefit of others who are beginning to make sheep farms, the manner which Major Davis constructs "cheap sheds"—two rows of posts about 15 feet apart are set up to sustain poles laid up in the same form of a log cabin roof, and small poles or brush laid on to sustain a covering of hay or straw, and the back side is completely filled with rails set up slanting and also covered, which not only makes a nearly tight roof, but a complete wind breaker, that will pay the cost in one winter He fodders his sheep without racks. His method is this. The ground being well covered with straw, the sheep are driven into another yard, whilst the wagon, loaded with hay, is driven in the empty yard, and the hay laid in rows. The sheep being now let in, commence taking their places without running over the hay or wasting more than when it is fed in racks or boxes, and none gets in the wool. I believe it promotes the health of sheep to allow them every pleasant day to have a range in the bushes. I have no doubt but that many who have driven sheep to this country during the last summer, will find it a bad speculation before spring. It was the worst of seasons to drive, and drove sheep never get through the first winter without great care and some loss at best; while there are tens of thousands brought here without any kind of forethought of preparation for shelter or comfort, except what they may gather from a poor supply of prairie hay and such shelter as they can find under a rail fence, or upon the open wild waste. Such conduct is reprehensible, as not only cruel, but as a wicked waste of the lives of such valuable animals. This is a good sheep country I shall insist, until convinced by proof to the contrary; but they cannot live upon prairie wind, and sleep in knee deep prairie mud.

On Monday, I passed on my way down Fox river, crossing at a very poor county town of a very good county, on a very good bridge, but one that is only good in very cold weather, as I witnessed higher up the same stream last week, as it failed on a warm day, and let a pair of horses and wagon through; but by which I had an opportunity of witnessing the operation of getting a horse out of a hole in the ice, by drawing a rope tight round his neck until he chokes and floats to the top of the water. I stopped this night with an old farmer from Lycoming county, Pennsylvania, who had sold a comfortable "old homestead," and in his old age sought a "new home in the west:" and what do you think he has found? a fac simile of his mountain streams and clear springs, and tall trees and useful rocks? Oh no: he has got none of them. But he has bought 400 acres of land—rich land—200 of prairie, and 200 that is neither timber or prairie, plow land or meadow, but covered with a growth of small oaks, fit only for fire wood, while his rails must be hauled from 3 to 6 miles, and cost $2,50 or $3 a hundred.

The whole tract cost $3 an acre. 50 acres under improvement with poor buildings, destitute of water, and several attempts to get good well water, have failed at 70 feet deep. And for such a home as this, the "old homestead" was parted with. I mention this circumstance, to show that emigrants do not always better their situation, when they leave substantial comfort in the east to pursue a vision of acquiring numberless acres of wild land in the west, however rich the soil of those acres may be.

Ten miles north of Ottawa, is "Indian creek," now occupied by a flourishing settlement, where, in 1832, the few inhabitants then there were the victims of the "Black Hawk war." Here is a body of good timber, which is the nearest timber to tha town. The space between this settlement and Ottawa, being unoccupied prairie. Four miles above Ottawa, there is about 20 feet fall over a rocky bed of the Fox river, partially occupied by a saw-mill and flouring mill of five run of stones, and a woolen manufactory of 4 satinet, and three broad looms, &c. As such manufacturing establishments are as yet so rare, although so much needed, I like to note all that come in my way. Here too, appears to be the northern boundary of the great coal field of Illinois. The abundance of coal that exists in the Illinois river valley is of immense importance, and more so on account of the scarcity of wood—coal at Ottawa is worth about 5c. a bushel, but it is not of first rate quality, being dug near the surface of the ground in the river bottom. By the bye, I wish you to notice that this phrase "river bottom," does not mean the bottom of the river, but what Eastern readers understand as "interval."

Ottawa is situated on the Illinois at the mouth of Fox river, and head of steam navigation in high water, and having been settled and built up during the canal fever, also contains many "hangers on," and from present appearances in the legislature, they are destined to hang on some time longer, before the canal is completed. And I would also here caution many of your down east readers, who have purchased land along the line of this canal at high prices under the expectancy of its early completion, that they are also "hanging on" to a very brittle prospect—and for my own part, until I see some vigorous measures taken to complete this important work, which when done will relieve the state from one portion of her debt, I shall believe that she does not intend ever to pay any part of it There is a Court House at Ottawa, built when the whole country were building castles *on credit*, at an expense of $36,000. As an evidence of very uncommon taste in this treeless country, I notice the yard set with shade trees. As usual in all western towns, where land was so dear and scarce, the streets are narrow and lots small. Even the principal hotel, to save room upon the surface of such valuable lots, has its dining room below. I attended a thinly attended scientific lecture at a neglected looking Mechanic's hall; at which I did not wonder, as all interest and conversation seems to be centered upon "canal! canal! canal!"

On the 8th of Jan. I ferried the Illinois in a most violent snow storm, and amid floating ice, being impelled to do so by the prospect that in an hour more all chance of crossing would be at an end, except upon the ice, which in several instances had already caused the loss of several teams this winter; and of the two dangers I chose the least and got safe over. But not so at an unbridged creek, three miles along the river road, where the ice gave way and gave me an upset into the water, mud and ice. That such a creek on such a road so near such a town, should remain for years unbridged is not singular, for who ever knew little works attended to where great ones, like this great canal, absorbed all minds. But for my consolation for my misfortune, I was assured that hundreds had met with worse ones at the same place. The great neglect of roads that manifests itself throughout this country, goes far towards creating a prejudice with strangers against any new country they are passing through

I spent the night with a very intelligent farmer by the name of Baldwin, at "Farm ridge" on the Vermillion. Here is a settlement of Connecticut farmers, who have brought abundance of enterprise and industry with them, as is manifest by the appearance of good houses, barns and orchards. The only thing lacking to make this lovely land very desirable, is timber which is here, as everywhere, too scarce. The Vermillion, however affords excellent mill sites, and abounds in coal of good quality. The coal is in three beds, the lower one in the bed of the stream. The banks are high bluffs of clay, coal and limestone. Vermillionville is one of those many towns in the west where people have learned by sad experience that they cannot live upon a little "7 by 9" town lot. Though many have moved out, there are some enterprising citizens left, one of whom is the new postmaster, Dr. Bullock.

The nature of the soil along the Vermillion, is from 1 to 3 ft. black loam, then several feet clay, then sand, in which is found water. Natural curiosities in such a country are scarce, but near the mouth of the Vermillion are two—one, the "Deer-park," is a chasm in the rocks several hundred feet deep, a few rods in width and half a mile long, having an opening next the stream, into which deer used to wander after a "salt lick," and fall an easy prey to the Indians. The other is the celebrated "starved rock" on the Illinois, noted in history as the spot where a small tribe of Indians were driven by another tribe and besieged till starvation alone conquered the bravest of the red braves. From the Vermillion I passed over a dozen miles of beautiful country to Granville, a fine little town in Putnam co. beautified by a handsome church and a very excellent school. Spent the night with a Mr Ware from Massachusetts, who with his brother have set their neighbors an example in farming and improved stock worthy of imitation.

During this day's ride I passed a "long ditch" in the woods at Cedar point, which I was informed, was "the great Central Rail Road of Illinois," *that was* to lead from Galena, crossing the Illinois at the termination of the canal at Peru, to the great city of Cairo, at the mouth of the Ohio. Six miles southeast of Granville, is "Mt. Palatine," a Baptist settlement and school, four miles out upon the wide prairie, solitary and alone, so far as regards timber.

Near Magnolia, which is a flourishing new town, 8 miles from the Illinois river, in which for the want of water power, steam is used, I spent a night with a Mr. Patterson from Pa.; and from his English shepherd, I learnt that he esteems bran

slops, the best food for sheep dropping lambs in winter; and the condition of those on hand went far to prove it. As some criterion of the price of land in this vicinity, I learnt the sale of a two hundred acre farm, about 80 improved, 60 timber and balance unenclosed prairie, with very moderate buildings for $2500—the seller being bound for that new "Eldorado," of our restless population, the Oregon territory.

At Magnolia, I saw the first sugar maple; the timber northward being mostly oak. Upon Mr. Patterson's land, I also witnessed the astonishing increase of timber, when kept from fire—a matter not sufficiently thought of in this country—a country where tens of thousands of acres of rich soil can never be fenced except by growing the materials.

From Magnolia to Washington, I passed over some poor, uneven, barren, much uncultivated prairie, few and poor mill streams, through the very poor county town of Woodford co. (so named perhaps to indicate that the county is *not all* prairie) to the latter town, which lies about 10 miles east of Peoria, where I saw a large steam mill in operation, and a very extensive pork house, and other evidences of a prosperous state of things. Here after many days of beautiful winter weather, I encountered in the afternoon of January 11th, a furious snow storm with a head wind too strong to beat up against, which drove me into quarters with a homesick Kentuckian, who was longing to return to his "own native land"—and here, after our rambling ride, my dear readers, we will rest until the morrow when you shall again "go ahead" with your old friend,

SOLON ROBINSON.

IMPROVEMENT OF AN OLD FARM.

LUTHER TUCKER, ESQ.—The January number of your new series has been received, and I should be deficient in gratitude to your able contributors, were I to omit the opportunity to express the obligation I owe them for the valuable information contained in this publication. A single article therein has benefited me now, more than the cost of several years subscription. During years gone by, when your publication was issued from Rochester, most of my substantial ideas of farming were acquired by a perusal of its pages; and these old volumes are preserved and referred to yet, on many occasions, for practical information that I could not otherwise obtain.

I am disposed to contribute to your periodical my share of observation and knowledge of agricultural subjects as justly due to it, but the ground is so completely occupied by abler hands, that I can do but little more than corroborate the great value and practical utility of the plans laid down to increase the fertility of the soil, and improve the manner of its cultivation. But inasmuch as a statement of the method I pursued to produce the same results (though brief, imperfect and a repetition of that which has been better detailed) may be an encouragement to some of your new subscribers to proceed at once to the improvement of their farms, I will endeavor to lay it before them.

Seven years ago my wife and I came into possession of about seventy acres of land. The soil naturally would rank as second quality in this part of Pennsylvania, but was much reduced in fertility, and sadly out of order, by bad farming, continued during a series of years, and the last fourteen in the hands of yearly tenants, the last of whom paid one hundred dollars a year, and frequently claimed an abatement of that. The soil generally inclines to a yellow or reddish clay, with occasional stony ridges of sandy loam, the whole based upon a subsoil of impermeable red clay. In wet weather this soil becomes saturated with water, and during the winter and early spring, when mid-day thaws alternate with freezing nights, clover and other taprooted plants are thrown out of the ground, and generally perish.

The fences on this property were in a decayed state; not one good panel could be found, but briers, elder, sassafras, cherry, noxious weeds and stones, occupied both sides of every fence. On the ridges, red sand rocks, from the size of a stove to a bake-oven, were obstructions to farming, and in spots small stones were so numerous as to throw the plow out when in the best hands. Briers, garlic, St. Johnswort, yarrow, wild carrot, and every other noxious weed in this part of the country abounded in the fields; and to add to the evils of this bad system of farming, the water from the public road and the adjacent higher ground, ran through the dung yard, leaching the manure of its fertilizing principles, and carrying its best substance to waste in the nearest mill-dam, leaving fifty or sixty loads of light, strawy substance, to supply the exhaustion of the cropped soil. Ten bushels of wheat, twelve of rye, fifteen of corn, and one ton of rough field hay per acre, may be set down as its produce in a favorable season.

The experienced reader will believe this picture too highly colored until I mention one encouraging feature on this farm, which alone enabled its occupant to pay any rent at all. About eight acres formed a valley, through which ran a small but constant stream of water. Half a century ago artificial channels were dug at the proper level, along both sides of its banks, for this stream to flow in, enclosing about that quantity of ground, which could be watered at pleasure, and with due attention could be made to produce two tons or more of hay to the acre, making the most valuable kind of provender for milch cows.

On taking possession of this land, my partner aforementioned and I sat down to calculate the cost of making the necessary improvement to bring this land into a profitable condition. We borrowed five hundred dollars, and commenced working. We enlarged our garden to an ample size, and enclosed it with a good picket fence. I enlarged my hog pens to contain thirty or forty two horse loads of manure; had many loads of small stones hauled from the fields into the roads, and breaks made across the road, with inlets for the water into the sod fields, and open ditches or covered drains to carry the excess off; plowed the road down below the barn and filled up around the dung yard, so as to turn the water off the manure; next cleared the meadow of all obstructions of wood, stone, or unsightly heaps of earth, harrowed the surface with a sharp and loaded harrow, sowed timothy seed, opened the ditches on the sides and the middle of the meadow, and spread the water evenly over its surface; then moved the fences, grubbed the headlands; chopped level with the ground every tree not useful for fruit, shade or ornament; collected the bones of animals and oyster shells, and on heaps of briers or brush reduced them to cinders, applied this as a top dressing to poor spots of sward; applied thirty or forty bushels of fresh slaked lime to every acre of arable land, and about one-half has a second dressing of the same amount applied; have taken up, split, and carted to convenient places for building wall, every rock in the way of farming; have enclosed the land and divided the fields with substantial fencing, and planted about two hundred and fifty grafted fruit trees; and lastly, but not least in importance, I made during the last year upwards of two hundred two horse loads of good manure.

Now, what is the result in figures of this system of farming? Book farming, if you choose to call it so. Last summer fattened six steers on grass, (that I fed the previous winter on straw and corn fodder,) and sold them to the butcher in hay-making; fattened and sold forty-three sheep, one-third of them my own raising; sold one fresh cow, also my own raising; sold four hundred pounds of chickens, besides a lot of other poultry; sold seven barrels of vinegar; butchered four hundred and fifty pounds of corn fed beef, and one thousand nine hundred and fifty pounds of pork, also my own raising; sold fifty bushels of early potatoes, and sell about eight pounds of butter weekly the year round; raised one two year old and one three year old colt; made the last season, though a dry one, one ton and a half of clover and two tons of clear timothy hay to the acre, and raised twenty bushels of wheat, thirty-eight bushels of oats, and thirty-three bushels of corn per acre, each.

In presenting this statement of improvement in exhausted land, I claim no particular merit; it has been done by application of the principles again and again laid down in your valuable paper; and I doubt not that in the hands of an experienced farmer greater improvement would have been made. Enough however is done, to justify me to present it to your readers, as proof of what may be done to renovate impoverished soil, and make it profitable.

AGRICOLARIS.

Coventry, Chester co., Pa., Jan. 23, 1845.

MAMMOTH HOG.—Hiram Duell, of Hebron, N. Y., it is said has gone to Boston with a live hog, which is two and a half years old and weighs 1,548 pounds.

THE FIRE BLIGHT IN PEAR TREES, &c.

MR. EDITOR—Some time since, I visited, in company with an agricultural friend, the delightful place and well cultivated farm and garden of Mr. JABEZ JENKINS, of West Whiteland, Pa., and witnessed his mode of preventing the fire blight on his young pear trees, as also the cure of the cause, from whatever source proceeding, of the shedding of premature fruit. It was nothing more or less, than paving around each tree to a good distance, with stones, which he assured us he had hitherto found to answer the purpose, entertaining the idea that the remedy proceeded from the fact that the time of their blooming is thus very perceptibly retarded. Certain it is, at the time of which I speak, a good crop of very healthy fruit was found on every tree.

But my present purpose is, respectfully to request Mr. Jenkins to inform us through the medium of the Cultivator—which I presume he reads, for, judging from the order, neatness and regularity exhibited around him, he must be held obnoxious to the charge of being a book farmer, and then he takes the Cultivator as a matter of course—if the mode he had adopted for the purpose continues to afford him satisfaction, and if so, whether, reasoning from analogy, he would not expect the same course to work the same effect on the disease of the plum, as also that of the Morello cherry, the trees of which, in so many places, are afflicted with the rheumatic gout, and of consequence, subjected to the ravages of the curculio, according to the new doctrine which is gaining ground about it, that "living blight is the effect, and not a cause of disease." Remarking by the way, however, that this plan of paving around the trees, militates most strongly against the perpetual cultivating system, so long practiced by our large peach growers, for the express purpose of protecting their trees from the Yellows, &c.

I remember also, that the soiling of cattle in their stalls had claimed his attention; and the result was manifest in mountains of the richest manure, thrown up in the stable yards around. I recollect too, indistinctly I must confess, that he informed us, he had made some remarks respecting the crop of wheat, sown on land from which a crop of oats had been cut for soiling, which exhibited different appearances on spots that had been mown early, middling, and late, as also on that part where they had been permitted to remain until ripe, but whether they had been plowed in, or cut and taken to the barn, I cannot say; however that may be, I can promise your readers a very interesting account, if Mr. Jenkins will oblige us; and to those who know him, I need not add, that may be depended upon. Am I right in the idea, that the racks, out of which the cattle were soiled, had the staves placed horizontally instead of vertically, by which they were enabled to pull out long fodder with much greater ease, and without the waste attendant on the practice of feeding in troughs. As the system of soiling seems to be gaining ground in many places, Mr. Jenkins has it in his power to confer lasting obligations on numerous individuals, who are only desirous of knowing the ground upon which to commence operations, and their probable results, before starting, and although myself, not quite a stranger to the system, I should be glad to learn how the cattle are supplied in their stalls, after the crops, destined for their use, have become sufficiently high in growth to admit of a good bite, but not to allow of mowing, which must be delayed, else the productiveness of the crop is very much reduced. Where few cattle are kept, they might be tethered on the crops for a time, but on a sufficient scale to answer any good purpose, this plan would be found impracticable, and could not be denominated *soiling*. This, therefore, is a feature in the system that requires to be *brought out;* at the same time, I am prepared to find, that the addition to the manure heap and its superior quality, are sufficient to pay the extra expense incurred; particularly if the attendant knows how to compost the heap; and by pouring on the liquid contents of the cistern, built to receive it from the cattle, rendering it of more importance than the solid portions, according to late experiments, by which it was found, that one pint of urine from stalled cattle will produce an extra pound of wheat. *Chester Co., Pa.* M. P.

BERMUDA AND CRAB GRASS.

EDITOR OF THE CULTIVATOR—I have read an article in the December number of the Cultivator, in which some grasses from Bermuda are compared with others from Mississippi. The botanical name of the Bermuda grass is *Cynodon dactylon*, or *Digitaria dactylon* of Elliott, who places it in the same genus with the crab grass (*Digitaria sanguinalis*) so troublesome to planters at the south, and to our northern gardeners. Elliott, in his Botany of South-Carolina and Georgia, remarks that although the crab grass is an annual, it is the best grass for hay at present known in our low country. The Bermuda grass is perennial, and is already widely diffused through the low country of the south. I have seen it frequently in south Alabama; have received specimens of it from Prof. Carpenter of Louisiana, and according to Elliott, it is common in the low country of South-Carolina and Georgia, particularly in loose soils.

Elliott says: "We have two varieties of this plant, one coarser (perhaps a species) growing in damp soils and native; the other said to be imported, a tender, delicate grass, growing over and binding the most arid and loose lands in our country, and apparently preferred by stock of all descriptions to every other grass. The cultivation of this grass on the poor and expensive sand-hills of our middle country, would probably convert them into sheep walks of great value; but it grows in every soil, and no grass on close rich land is more formidable to the cultivator; *it must therefore be introduced with caution.*"

The crab grass of Bermuda (*Rottboella dimidiata*) is rare in the southern States, and apparently confined to places in the vicinity of salt water. I never met with it but once, and then it was confined to a small spot forming a dense mat. This was opposite Pilatka on the St. Johns river in Florida. Yours truly,

SAML. B. BUCKLEY.

West Dresden, Yates co., N. Y.

BLACK SEA WHEAT.

MR. TUCKER—This wheat is found to be so valuable a variety of spring grain in this and some other of the New-England States, that I am disposed to trouble you with another letter on the subject. It is evidently a very hardy grain, and not liable to suffer from the depredations of insects. It will grow and yield a fair crop, on almost every variety of soil, rich or poor; on very rich land it fills well, even where it is inclined to lodge.

It has been suggested that it would be profitable to introduce this wheat into those parts of Michigan and Illinois, where the winter variety suffers much damage, and yields poorly on account of the luxuriance in growth.

Most farmers here fail by letting this Black sea wheat stand too long. It produces less bran, and the bread is whiter and sweeter, where the crop is gathered in a greenish state. When allowed to stand upon the ground till perfectly ripe, there is a black mould, or substance, which frequently may be seen between the lobes on the belly of the grain.

I believe this grain was first shipped to Portland in the State of Maine, and it proved to be so valuable in that State, that the Kennebec County Agricultural Society have recently made two additional importations from the Black Sea, both of which have proved entire failures. In 1841, they had forwarded through the agency of Thomas Cordis of Boston, sixteen bushels. It was distributed, and sown by different individuals in that county, on various soils in the different locations, and in all cases it mildewed. Some was sown again with no better success in 1842. In that year, through the same agency, they procured about the same quantity, which proved to be the same variety, and they met with equal bad success. They were in hopes to have obtained some of the Siberian wheat in the last attempt, but were disappointed. I understand they are about to try again their success in another importation. We have proved by actual experiment, that not only this, but other kinds of winter and spring wheat will produce better to change the seed back and forth every year, from east to west, and from west to

the east, between Maine and Michigan. I understand that Mr. Cordis has a nephew at Smyrna who is happy to confer favors on such as are striving to improve the agriculture of the country.

I sowed this season on about two acres, near 3 bushels of seed, from which we harvested 71½ bushels of plump wheat. I took to Sprague's mill in this town, some of this Black Sea wheat, which was cleaned in "Bailey & Rich's Smut Mill," (which, by the way, has proved to be the best machine to clean *damp grain*, that has ever been introduced among us.) There carefully measured in a sealed measure, seven bushels, which weighed on the scales, 478 lbs. and 3 ounces, which is 68 lbs. 5 ounces to the bushel, after it was manufactured into flour. The yield was 360 lbs. 8 ounces, or 51 lbs. 7 ounces of flour to the bushel, and 14 lbs. and 10 ounces of bran and middlings—waste, 2 lbs. 5 ounces. To every 60 pounds of wheat, the produce is 45 pounds of flour.

There appears to be two kinds cultivated here, the white and red chaff. The heads of both varieties are guarded by a stout and long beard. The red chaff is generally preferred to the white. The berry of this wheat is large and of a dark color, very hard, and not subject to shed in the gathering; it requires a threshing machine to beat out the grain; it also requires more moisture to swell the berry, and is not as liable to grow by standing out in the field as any other kind cultivated here.

Weybridge, Vt., Jan. 31, 1845. S. W. JEWETT.

SQUASHES—POULTRY.

L. TUCKER, ESQ.—Having received a number of letters of inquiry respecting some statements in an article of mine in the Cultivator for October last, I take the liberty of answering some of them through your paper.

1. THE VALPARAISO SQUASH.—I am not aware of any peculiar difficulty in raising them. They require a warm, rich soil, a good exposure to the sun, and an ample space for the vines. They should also be planted early, so as to have the benefit of the whole season. At the State Cattle Show and Fair at Poughkeepsie last fall, I saw a number of varieties of this squash, some grey, some yellow, &c., but generally of an oblong shape, and the largest was said to weigh 200 lbs. and another 152 lbs. The seeds can doubtless be procured at the principal seed stores through the country.

The Cuba pumpkins, of which eighteen, as the product of one seed, and weighing 776½ lbs. were exhibited at the fair, appeared to have many qualities to recommend them to the farmers; but when told that they were sold for nothing less than twelve and a half cents per seed, I concluded to forego the pleasure of trying them for the present.

2. THE PRICE OF PURE POLAND AND DORKING FOWLS.—When cooped and sent away, the price is $1.50 per pair, or five for $3; and letters on the subject should be post paid.

3. CRESTED FOWLS.—From extensive observation and inquiry, I am led to believe that the Poland is the only original variety of crested fowls, and that all others are a cross between this and the common varieties. Of these cross breeds I saw several lots last fall in Fulton market, New-York, which were sold at high prices under the name of *French pheasants*.

4. HOW LONG WILL EGGS KEEP SO AS TO PRODUCE CHICKENS?—I have made no experiments to ascertain this, but believe if they should be put in salt immediately after being laid, and kept from the air and frost, that chickens might be hatched from them at least a year afterwards. Eggs laid in Europe have been brought to this country and hatched; and if some one will procure and send me some of Victoria's mahogany colored eggs from her China fowls, I will engage to try the experiment again.

5. HOW DID YOU ASCERTAIN THAT A HEN, CHANGED TO A NEW COCK, WOULD CONTINUE FOR FOUR OR FIVE WEEKS TO PRODUCE EGGS IMPREGNATED BY THE FORMER ONE?—Finding nothing in any poultry book in relation to this matter, I substituted a white cock for a black one, and then by marking and hatching all the eggs a hen produced in six weeks, and repeating the experiment a number of times, I came to the conclusion that the time was between four and five weeks. Other experiments have convinced me that the notion entertained by some, that a cock running with a lot of hens for a few days will impregnate their eggs for a whole season, is without any foundation in fact.

6. POULTRY HOUSE.—A Mr. Lyman has recently begun an experiment near this city, of keeping fowls on a large scale. He has erected a poultry house seventy-two feet long, twelve feet wide and fourteen feet high, divided into upper and lower rooms the whole length. At one end is a room for various conveniences of the owner, and over it a room for storing grain. The rest of the building in the upper story is fitted up exclusively with roosting perches for the fowls, and the room below it, connected by a flight of stairs, is fitted out with numerous feeding hoppers and tiers of boxes to lay in, &c. A door from this room opens into a yard of some half an acre, enclosed with paling eight feet high. Mr. L. has already 1,200 fowls in his establishment, and is seeking to increase the number to 2,000. He intends to keep an accurate account of debtor and credit, and will be able to show in a year or two something of the profits of such an enterprize. May we not hope that, what a king of France wished in regard to his subjects—a fowl in every one's pot—may be soon enjoyed by every family among us.

Buffalo, February, 1845. H. A. PARSONS.

FARMING EXPERIENCE.

MR. EDITOR—In farming, as well as in other operations, mere theory and speculation is worth but little; *practical experience* is what is wanted to uphold the business. The results of experience in farm management, are what farmers want to read and study. Every farmer has a system of management, which to his own mind seems most correct. It may be the system practiced by his father, of increasing to the greatest possible extent, his number of acres. Now I would never leave the old way for a new one, so long as it was certain that the old way was the best, nor would I follow the old track for the reason that it was old, when convinced, after careful examination, that a new one was to be preferred.

Reading agricultural papers, may perhaps be said to constitute the first step towards improvement. This reading gives an opportunity of becoming acquainted with the practical experience of farmers. It is much to be desired that more of this class of farmers could be induced to give their views. There is too frequently a reluctance to writing. This reluctance should be overcome. It is not to be expected that plain farmers should always frame sentences in the style of *literary* writers, nor is this necessary—give us the *facts* in an intelligible manner. Any man that can give his ideas to his neighbor in conversation, can do this, and this is all that is necessary. L. DURAND.

Derby, Ct., Jan. 1845.

FATTENING CATTLE.—It is not often that the "*reductio ad absurdum*" is used as a mode of demonstration in agriculture. So good an example has occurred to me that I cannot but offer it. I had directed my manager, a young and inexperienced man, to fatten three or four steers, while kept up, instead of permitting them to run at large with the rest, (bad management, too; I hope to adopt shortly the soiling system.) "What are these!" I exclaimed in astonishment, at seeing the lean and ill-favored kine. They had been placed on the *north* side of a shelter, were fully exposed to wind and rain, and were up to their knees in mud, which the overseer hoped to make dry and comfortable by drawing in leaves, straw, &c. !!!—and hoped to fatten them by furnishing abundance of corn!!! Enough had been wasted on them to have fatted a herd, while he could not conceive why they remained so poor! "Turn them out," said I, "till we can put up more houses." The situation had been selected for convenience of watering. S.

MILK.—It is estimated that 2,000,000 quarts of milk are annually consumed at Rochester, which, at four cents per quart, would amount to $80,000.

PHOSPHATE OF LIME—PEAT FOR MANURE.

In the August number of the Cultivator I gave you a few hasty notes upon the subject of Phosphate of Lime, in reply to the inquiries of "*A Practical Farmer*," of Staten Island. Although it is doubtless true, as there stated, that there are no localities yet known in the state, where this mineral exists in sufficient quantity for agricultural purposes, yet I indicated its existence under circumstances which doubtless yield an unfailing supply.

Since the phosphates are known to form an essential part of cultivated grains, and this supply coming from no other source than the soil and what is derived from it, it follows that these substances exist there. Now there is no other source for its occurrence in soils, but from the decomposition of rock, for it is fully acknowledged that all soils are derived from this source. The phosphates must exist then, in the rocks originally, either visible to the eye, or so combined as to be invisible. I alluded to the analyses of coral, made by Mr. Silliman, Jr., proving the existence of phospates in all cases Now it is well known that nearly all our limestones contain corals, and some of them are almost entirely composed of the broken and comminuted skeletons of these zoophytes; consequently the phosphates must be as widely diffused as our calcareous rocks, and equally a consequence is the limit of the wheat growing region.

I make these remarks incidentally, as showing the wide diffusion of a mineral substance essential in grain growing soils Now it is one of the most important objects to the future agriculture of the state, that a full analysis be made of all the calcareous rocks of the state, both limestones and shales. And not only should an analysis of these be made from single specimens, but of specimens from numerous and distant localities in the same rock, so that its value in this particular may be known throughout its range. This is equally essential with an analysis of the soils, the marls and muck, and every agriculturist should endeavor to facilitate an object so much to be desired. The present generation may not require this knowledge to enable them to raise bread, but others are coming upon the stage, and every advance made by us enables them to advance still another step. Therefore as a foundation for agriculture, the rocks, and especially the calcareous rocks which are every where loaded with corals, shells and other organic remains, should receive a thorough chemical examination.

I have been led into these remarks incidentally from perceiving the attention which is now being given to natural fertilizers of all descriptions. The facts here stated may perhaps offer an explanation of the variable effects, as stated, of lime. In some instances the use of this substance is said to produce no beneficial effects upon soils, while in others its effects are acknowledged to be important and beneficial. Might it not be worth while to ascertain whether lime from the same rock or same locality, is uniform in its effects? And also in other cases, where no benefit is derived, may it not be desirable to inquire if the limestone originally contained corals and other organic remains? Perhaps the presence or absence of these may exert an influence not appreciated. This subject is of high interest to agricultural chemists, and may perhaps have received attention, though I am not aware of it.

That some limestones are, or at least appear to be, destitute of organic matter is true. All our crystalline limestones are apparently destitute of organic matter, but in most cases of this kind they have been obliterated by the process of metamorphism, or the change by heat from an ordinary sedimentary to a crystalline one Many of these limestones contain crystals of phosphate of lime, and these are doubtless derived from corals or other organic matter in the rock, and segregated and crystallized by the same process which resolved the whole mass crystalline.

The inquiries to be made, therefore, respecting limestones are, whether they contain organic matter—whether crystalline or not, and if so, whether containing phosphate of lime disseminated. The effect of the different limes, and analyses of the original rock, would be a subject of agricultural interest and importance.

This fruitful subject of theory and investigation has led me into a longer digression than I intended, and I perceive plainly that with a few more facts and experiments, an interesting paper could be made This however is not my design, being engaged in other pressing avocations, though still feeling an interest in agricultural subjects; which interest induced me, in the earlier annual reports to give some space to the subject. I should have done more, but I fancied they received little attention, and therefore in the Final Report, instead of gathering the whole matter into a chapter, left it for the agricultural surveyor.

My attention, as before remarked, was called to the subject by the inquiries of a "Practical Farmer" of Staten Island, and I perceive the same gentleman has addressed to me a communication, in the November number of the Cultivator, relating to muck or peat.

In the annual reports of the Geologists of the state, numerous localities, and almost inexhaustible supplies of this substance were given; but in a few instances only had application been made of its properties as a fertilizer. One example of this kind, which now occurs to me I will briefly notice. Mr. Merry, of Wheatland, Monroe county, whose farm embraced part of a large marl and muck swamp, drained a small portion near the margin, and seeded it with Timothy, sometime in June if I recollect aright. He cut three and a half tons to the acre. About three fourths of an acre of the same ground was sowed with onions, and the produce was 400 bushels.

Put to test the virtues of this material as manure, a compost of muck and marl was made with some stable manure, and thus applied to a heavy soil which produced but poor crops. The effect was a large crop of wheat in a season when much of the country around produced but very small crops. The same field, when I saw it, was just cleared of a crop of corn of between 50 and 60 bushels to the acre, while an adjoining field, where the soil was in its natural state, produced only 15 bushels! Such were the effects of a compost of marl and muck; and not only were the crops thus improved, but from a stiff clay soil it had become friable and pulvurulent, thus saving a great amount of labor in cultivation.

But it is not necessary to quote examples of this kind. Your correspondent of Staten Island, has shown full well the beneficial results of the use of muck, and I apprehend if used with a little lime, even more benefit might result.* At least it would hasten the decomposition of vegetable fibre, neutralize any acids that might exist, and decompose sulphate of iron which is often present in muck.

We will now proceed to mention some of the more important localities of this substance in the state, premising that from north to south, and east to west, there appears to be an inexhaustible supply. The localities cited are from the Annual Geological Reports, and numerous others doubtless exist, which from circumstances beyond control, could not be examined or even known to the Geologists.

In the First Geological District, Mr. Mather remarks that peat is so abundant that it would be superfluous to mention localities, and that it occurs on nearly every square mile, and in almost every marsh. In his first report, Mr. Mather gives no localities, but in the second he enumerates a large number in the counties of Queens, Kings, Richmond, Columbia and Dutchess. In these counties about 50 localities are enumerated, which is doubtless but a small proportion of the whole. The aggregate amount of peat estimated to be contained in these marshes at that time, was 3,000,000 cords. This estimate was for peat as fuel, and there would probably be nearly as much more which would be equally good for manure.

The principal localities enumerated are Kinderhook pond containing 60 or 70 acres. The marshes and shallows of Kinderhook. A marsh of 6 acres three miles north of Kinderhook, and another similar one in the north part of Stuyvesant. A marsh of 30 acres one mile southwest of Kinderhook. Two or three localities are mentioned in New Lebanon, one of 15 and another of 30 acres. In the township of Canaan alone, Mr. M. estimates 400,000 cords of peat. There is a small marsh near Upper Red Hook, and several between Fishkill and Hopewell, containing altogether about 40 acres, and estimated to contain 40,000 cords of peat. Another marsh extending north from Long pond is estimated to contain 300,000 cords of peat. Marshes of from two or three to ten or fifteen acres, occur in the towns of Ghent, Malden, Hillsdale and other places. In the town of Amenia there is an extensive bog containing about 150 acres, and estimated to contain 150,000 cords of peat. Others in the town of Dover contain above 75,000 cords There are also several peat bogs northeast of Dover, near Elbow mountain, one containing 40 and another 60 acres. Large quantities of peat occur near Pine Plains, in Copake and Taghkanic. The marsh in the valley of Stessing pond is estimated to contain 500,000 cords.

A marsh three miles east of Poughkeepsie is estimated to contain 130,000 cords, also several near Union Corners, one containing 60,000 and another 90,000 cords, and in Staford one about 60,000 cords.

Numerous other localities of this material are enumerated in the same region of country, but it does not appear necessary to swell the detail in this communication. The immense amount of this extremely valuable substance in these counties should be sufficient to direct the attention of farmers to the subject. Here is presented an almost inexhaustible supply of natural manure, and a product too, which in all swamps and waste low lands is constantly accumulating. In a few localities only has any attention been given to these deposits of peat or muck, and in still fewer have persevering trials been made of its application to and effects upon crops. To some crops it is doubtless more applicable than to others, but either alone or in combination with other substances it is unquestionably of great importance to all crops Carbonaceous matter is of the first importance in soils, and the condition of this material is peculiarly favorable to the absorption of moisture and gases, and mechanically fitted to loosen and render friable the closest soils.

In a future number we shall give some farther notice of localities of this substance, with some remarks upon its uses.

Albany, February, 1845. JAMES HALL.

* Perhaps I might here introduce as a note the mode of making manure on sugar and coffee plantations of the West Indies, as detailed to me by a gentleman of Barbadoes. Vegetable matter of all kinds, leaves, grass, twigs the refuse of cane, and in fact every thing of vegetable matter with stems not larger than one's little finger, is gathered together; a pit is made of sufficient depth, a layer of the vegetable matter thrown on, then a layer of lime, and again of vegetable matter and so on until the pit is filled. The place is then enclosed, and cattle yarded there for six months, when the whole will be found in a state of decomposition, and fit for removal. This is one of the best manures. What a lesson to those farmers who burn their wheat straw in view of limekilns, and suffer tons of leaves, weeds and other vegetable matter to decay upon the surface, "wasting its sweetness upon the desert air," instead of yielding it to the crop of the succeeding year. How many thousand tons of manure could be made in this way annually in New-York, and as a consequence how many thousand dollars would *actually* be added to her wealth?

Foreign Correspondence.

MR. NORTON'S LETTERS—No. VIII.

Lab. of Ag. Chemistry Association, Edinburgh, Dec. 31, 1844.

L. TUCKER, Esq.—In my last letter, I alluded to some rather remarkable improvements of peat moss, that I had seen upon the estate of Mr. Fleming of Barochan, near Paisley, in Renfrewshire. These improvements are as yet but of small extent, embracing by far the least portion of a moss of about 150 acres. It seemed to me however, that they had been both skillfully and economically conducted, and I will endeavor to give some account of the method pursued.

A large part of the land now under cultivation, has been reclaimed by a tenant named Weddle, a fine specimen of a hard working, shrewd, practical man, making up for the want of means, by industry and foresight. His house stands where the peat was once 20 feet in thickness, and at the distance of a few hundred yards in front, where the improvements terminate, it yet rises, a perpendicular wall of about 12 feet. He is allowed the privilege of cutting as much of it for sale as he chooses, and all spare time is employed in this business, so that nearly an acre of ground was dotted with large stacks, piled up in such a way as to be thoroughly exposed to the sun and wind.

The chief difficulty in improving peat moss is to obtain a good soil on the surface of the peat. In this case, the clay lying immediately underneath, is of excellent quality, and yields good crops when it can be brought to the surface; but bringing it up from beneath 10 feet and upwards of solid peat, is of course not to be thought of. Many plans have been proposed for reducing the thickness of such immense masses; a proprietor a few miles from Barochan, is pursuing a method which has found favor in other parts of Scotland. He has erected a steam engine, which pumps a large quantity of water from an adjoining river, into a sloping canal, the mouth of which is opened at intervals, and masses of peat thrown into it, are swept by the current into the river, and finally to the sea. This method is painfully slow, and the capital required, forbids its employment by any but the wealthy.

Mr. Weddle's plan is far simpler and more economical. After the peat is dug away for sale to within from 2½ to 4 feet of the underlying clay, he makes the surface into conical piles, each containing some dry peat in the center; when the preparations are complete, the dry portion in the center is kindled and causes, before it expires, a slow combustion of the surrounding mass; when fairly started, it is only necessary to throw on from time to time, the wet peat dug up around each heap. In this way several feet in depth *may* be burned away in a season, with comparatively little expense. But this is not the only advantage. Peat, as it is a product of vegetable life, contains the substances necessary to sustain that life. In the state of peat, however, various organic acids are present in injurious excess, and it is otherwise not in a condition to readily give up its valuable constituents as plants require them; but when burned, noxious ingredients are driven off, and the ash which remains, is a valuable manure, so much so, that it is largely imported from Holland under the name of Dutch ashes.

When the thickness of the peat is considered sufficiently reduced, the whole is thoroughly trenched, and a foot of the subjacent clay brought up and spread upon the surface. This clay, in itself good, is further improved by mixing with the ashes resulting from the burned peat, and the two together, form a soil scarcely to be surpassed. Each field is well drained at the same time that the trenching is performed.

It is obvious, that even with the exercise of the most rigid economy, the redeeming of this land must be expensive. We were favored with a statement of all the various expenses incurred in subduing an area of one and a half Scotch acres; the Scotch acre is about one-fourth more than the English imperial acre. Draining, trenching three and a half feet and bringing up 12 inches of clay, cost for the whole, £42, or $200. A heavy dressing of manure and 6 tons of lime to the acre, together with the operation of wheeling on by barrows, the ground being still soft, cost $270 more, making £97, or about $470, before a crop.

The first crop was potatoes, and the sale realized £54, from this deduct £9 for seed and working, and £2 7s. for rent, there remains as clear profit £42 15. 2. Oat crop, 108 bushels, brought £15 10s. deduct for seed and labor, £3 and £2 5s. for rent, leaves £8 5s. 3. Oat crop, larger in quantity than the previous year, but the price lower, being £8 8s.; deduct as before £5 5s. for seed, labor, and rent and £2 additional for grass seed, leaves only £1 8s. 4. Grass being the present year, two cuttings, worth £12, from which deduct rent, and £9 15s. are left. He has thus from four crops, made £62 3s., from which must still be deducted interest, and there remains £49 15s., or $240, being $60 a year, or more than 12 per cent per annum, or the original capital.

I have been thus particular in giving these statistics, because I think they show in a striking light, that *judicious* enterprise, is sure to be profitable, and because they may incite some of our *proprietors*, who complain that they cannot afford to improve their land. What a small *tenant* farmer, with small capital, can do, may at least be equaled by a *proprietor*, with even less means.

I have said that the peat ash, containing the substance of dead plants, is therefore fitted for the food of living ones. This is beautifully illustrated, as by chemical research, many practical points are here, under my eyes daily, by an analysis of the ash of two different layers of peat, analyzed lately under the direction of Prof. Johnston, the results of which I am permitted to insert in contrast with an analysis of Dutch ashes, also made here.

	White Peat Ashes.	Black Peat Ashes from Barochan.	Dutch ashes.
Organic matter (charred turf,)	54.12 pr ct.	3.02 pr ct.	25.77 pr ct.
Sul. and carb. of potash & soda,	6 57	5.16	2.78
Alumina,	2.99	2.48	11.19
Sulphate of lime, (gypsum,)	10.49	21.23	16.35
Carbonate of lime,	8.54	3.50	1.21
Oxide of iron,	4.61	18.66	trace
Oxide of manganese & magnesia,			3.39
Phosphate of lime,	0.90	0.40	1.24
Siliceous matter,	10.88	43.91	37 24
	99.10	98.36	99.17

With a few observations on these analyses, I will close. It will be perceived that the ash of the White Peat, was very imperfectly burned, more than half of its weight consisting of unburned organic matter; it is therefore necessary to double the weight of its other constituents in order to compare it with the Black Peat from the same moss. Compared with the Black Peat, it is especially rich in phosphates, as doubling the per centage, makes them 1.80 per cent or nearly 2 lbs. in 100. The White Peat is the upper layer of the moss, and therefore consists of newer plants. A striking feature of these ashes, is the quantity of sulphate of lime, (gypsum or plaster) which they contain, amounting in the two first, to fully one-fifth of the whole weight. The sulphate and carbonate of potash, too, is worthy of special notice as a very important ingredient. On the whole, we have in the two first about 40, and in the third, about 20 lbs. in 100, of substances necessary to our cultivated crops, and even indispensable. I think that the mere presentation of such facts, obviates the necessity of any further argument, and I am quite confident, that those of oor farmers who consider the matter, will never again waste so valuable a portion of their possessions. I am, yours truly,

JOHN P. NORTON.

MR. MITCHELL'S LETTERS—NO. III.

Liverpool, 20th December, 1845.

LUTHER TUCKER, ESQ.—Do not expect too much of these letters. All I hope is to give your readers the advantage of my own observation, which, though limited, it will be my aim to make discriminating and practical. I cannot hope to possess the advantage of communication with high authorities which some enjoy—still, I mean to keep my eyes all the while open, and shall not let placards or "spring guns," or fears of apprehension, deter me from occasional rambles through the grounds of gentlemen farmers; nay, shall even presume, with yankee im-

pudence, (when I visit his lordship's estate,) to question, *sotto voce*, Earl Spencer's chief steward or under gardener.

The grass in the fields is still green, and cattle, fattened for Christmas, still feeding upon the herbage, with only an occasional lock of hay. The frosts, for this climate, have been very severe, yet there has been no snow. The farmers hereabouts have now little to do. Some are carting manure from town, or heaping it in their yards, or scraping refuse leaves and dirt from the road side. Others are taking the dead wood from hedges, repairing their farm buildings and implements, or possibly breaking in young horses. Great numbers of them have been attracted by the fat cattle shows in various counties, which as usual preceded the Christmas holidays. That of the Smithfield Club is worthy of special mention, as having been visited by thousands, as well as by the Queen, Prince Albert, &c. There were on show 100 head of cattle, 300 of sheep. A very large polled Angus ox of Prince Albert's, was particularly remarked. You will find full accounts in the Mark-Lane Express.

At the Christmas *market*, were exhibited, of beasts 5,713, of sheep 36,970, being an increase over last year's show of 1,000 in cattle, and over 10,000 in sheep. The comparative prices of the two years range thus, per quarter of eight pounds:

	1843.	1844.
Beef,	3*s.* 8*d.* to 4*s.* 4*d.*	2*s.* 10*d.* to 4*s.* 6*d.*
Mutton,	2*s* 8*d.* to 4*s.* 4*d.*	2*s.* 10*d.* to 4*s.* 4*d.*
Veal,	3*s.* 4*d.* to 4*s.* 6*d.*	3*s.* 4*d.* to 4*s.* 4*d.*
Pork,	3*s.* to 4*s.*	3*s.* to 4*s.*

Notwithstanding the amazing quantity of meats which are so temptingly displayed in all the city stalls at this holiday time, yet there are many poor fellows who have to rest satisfied with the sight only. Before my eyes every day a dozen cabmen, who stand exposed to all weathers, eat their two meals upon the stand, consisting, in no instance, of more than four slices of barley bread and a cup of coffee. The most efficient workmen can be hired for 1*s.* and 9*d.* (38 cents) a day, finding themselves. And the cases are almost numberless of a cabman being obliged to support a wife and two or three children upon wages of seven shillings a week, out of which he has to pay two or three shillings rent! Do some of your readers want to emigrate, where they may find so cheap labor? Hear the other side of the story first. If you hire land you will have to pay from £3 to £8 the acre, and in most instances the taxes beside, which are enormous; moreover, the purchase of implements, &c. (at English prices) would require an investment sufficient to buy and enclose a hundred acres in Illinois. If actual purchase is considered, let me suggest that it would be hard to buy land at a price to live by, from those who are content to hold it while paying them but two per cent under high improvement. It requires no long residence here to discover that money is a cheaper commodity than with you, but while cheap, confined to comparatively a few, and those few the landholders.

The St. Johns' market—the largest in the world—makes a grand show as Christmas approaches. The dressing of the meats, and their fatness, in themselves a show, to say nothing of the immense displays of every variety of fruit and vegetable, and flowers and evergreens, stretching down the three hundred and fifty yards of tabling, and the fanciful festoons and holly branches, and boughs of the mistletoe, hung over every stall, and the thousands thronging the stone pave from eight in the morning till eleven at night. The rents of St. Johns' market, the last year, amounted to 6,578 pounds. It covers an area of 8,235 square yards, with roof supported by one hundred and sixteen cast iron pillars twenty-five feet high. There are besides, in Liverpool, three other markets for the sale of meats, covering nearly an acre of ground each; in addition to which are the fish market, the pedlar's market, the pig market, the hay market, and the cattle market. Venders of butter and poultry in many cases bring their produce directly from the country to the doors of their customers, in a bit of a rough cart, drawn by as rough a donkey. The Irish butter comes in tubs, with the several balls rolled in muslin; some of it is very nice, selling from 10*d.* to 14*d.* at retail. The best English fresh made butter fetches 14*d.* to 18*d.*, being now unusually high. An importer told me a day or two since, that a lot on hand would turn thirty per cent over the invoice price to the shipper. This was from the Canadas, though United States butter, the duty on that imported direct being very great. This reminds me that a corrected scale of the British tariff on American agricultural produce will be acceptable to many of your readers. I therefore append one, which I have submitted to inspection at the custom's rooms, and is pronounced correct. The sliding scale of duties on bread stuffs, I omit. Price of wheat the past week, has averaged 45*s.* a quarter—duty 20*s.*; that being the duty whenever the price is under 51*s.* a quarter. Of this sliding scale, the advantages and disadvantages, its advocates and opponents, I will speak more fully in a future communication.

British Tariff.

	From For'n Countries.	*From British Prov's.*
Apples, raw, bush.	$0 11	$0 04
Apples, dried, bush.	46	46
Bacon and hams, cwt.	3 22	80
Beef, cwt.	2 04	46
Butter, cwt.	4 75	1 15
Cheese, cwt.	2 41	57
Cranberries, gall.	2	2
Fruit, £100 value,	23 75	23 75
Hay, load,	3 68	1 84
Lard, cwt.	46	11
Pork, cwt.	1 84	46
Tallow, cwt.	72	6
Teasles, 1000,	6	6

In my next I will give you the prices of all marketable produce as retailed in the market houses.

Till then, yours, &c.

D. Y. Mitchell.

FOREIGN ITEMS.

Tiles for Draining.—Cottam and Hallen exhibited a new drain tile machine, at the late Smithfield show, said to be capable of making 10,000 tiles per day.

A new kind of Roofing is coming into use in England. It is called the Patent Asphaltefelt. Its cost is one penny per square foot. The felt being impervious to rain, frost and snow, and a non-conductor of heat, makes a warm and durable covering, and from its lightness, economy and portability, is particularly well suited for cattle and sheep sheds, and other out buildings.

Death of Fellenberg.—The celebrated M. Fellenberg, founder of the agricultural school at Hofwyll, in Switzerland, died on the 21st of November last.

Allotments.—The average acreable products under the allotment system in England, for 1842, are said to have been as follows: Potatoes 413 bushels, wheat 43¾ bushels, barley 53¼ bushels, peas 45 bushels, beans 56¾ bushels.

☞ It appears that the quantity of wheat imported into Canada from the United States, from the 11th of October, 1843, to the 5th of July last, (to which day the returns received only extend,) was by sea 634 quarters, and by inland navigation or land carriage 21,161 quarters.

RAISING EARLY CUCUMBERS.

H. G. Dickerson, of Lyons, Wayne county, N. Y. one of the most successful cultivators of garden vegetables, adopts the following mode of raising early cucumbers. He makes his hot-bed at the usual time, and when the soil is placed upon the stack of manure, pieces of turf are placed just below the surface, on which the seed are planted. If the grass of this turf is alive, it is to be put upside downwards. On the arrival of warm weather, and when the soil in the open air becomes fit for cultivation, these pieces of turf are removed entire, with the young plants upon them, and placed in highly manured ground where they are finally to grow. In this way the roots are taken up without the least mutilation, consequently no check is given to their growth. Afterwards, whenever there is any probability of a night frost, each hill is covered with a bell glass. These glasses have a small opening at top, which prevents the sun scorching the plants in case they are not removed in time; they are obtained at the glass-works in the neighborhood, for four cents a piece; but where they cannot be had, boxes with panes inserted, will answer nearly as well.

By this means, cucumbers fit for the table, were raised the past season, by the first of sixth month, (June.)

New-York State Agricultural Society.

Cattle Show and Fair for 1845, *to be held at Utica, Sept.* 16, 17 *and* 18.

PREMIUM LIST FOR 1845.

ON FARMS.

For the best cultivated farm, of not less than 50 acres, exclusive of woodland, regard being had to the quantity of produce, the manner and expense of cultivation, and the actual profits:

First Premium,..... $50 | Second do..... $30
Third do..... $20

The persons making application for these premiums, must submit written answers to a series of questions which will hereafter be published.

ON ESSAYS.

For the best series of Essays on the importance of scientific knowledge in prosecuting successfully the ordinary pursuits of Agriculture,..... $100
For the best Agricultural Text Book for Schools,..... 100
For the best Text Book on Horticulture,..... 50
For the best essay on Subsoil Plowing, with the results of actual experiments in the State of New-York,..... 20
For the best essay on Draining, with details of the results of actual experiments, showing the exponse and supposed increased value of the land,..... 10
For the best essay on Irrigation,..... 10
For the best essay on the Culture and Manufacture of Silk,... 20
For the best essay on the prevalent Disease in Potatoes,..... 20

CATTLE.

CLASS I.—Durhams.

Best Bull, over 3 years old, $15 | Second best, ... $10
Third best, Diploma.
Best Bull, 2 years old,..... $10 | Second best,....Colman's Tour.
Third best, Diploma.
Best yearling bull,..... $10 | Second best,....Colman's Tour.
Third best, Diploma.
Best bull calf,...Colman's Tour. | Second best,.....Diploma.
Best cow, over 3 years old, $15 | Second best, ... $10
Third best, Diploma.
Best heifer, 2 years old,..... $10 | Second best,....Colman's Tour.
Third best, Diploma.
Best yearling heifer,..... $10 | Second best,....Colman's Tour.
Third best, Diploma.
Best heifer calf, .Colman's Tour. | Second best,.....Diploma.

CLASS II.—Herefords.

Best bull, over 3 years old, $15 | Best cow,..... $15
Second best,..... 10 | Second best,..... 10
Best bull, between 1 and 3 years old,..... 10 | Best heifer, between 1 and 3 years old,..... 10
Second best, ...Diploma. | Second best,.....Diploma.

CLASS III.—Devons.

Best bull, 3 years old,..... $15 | Best cow,..... $15
Second best,..... 10 | Second best, ... 10
Best bull, between 1 and 3 years old,..... 10 | Best heifer, between 1 and 3 years old,..... 10
Second best, ...Diploma. | Second best,..... Diploma.

CLASS IV.—Ayrshires.

Best bull, over 3 years old,. $15 | Best cow,..... $15
Second best,..... 10 | Second best,..... 10
Best bull, between 1 and 3 years old,..... 10 | Best heifer, between 1 and 3 years old,..... 10
Second best,..... Diploma. | Second best,..... Diploma.

CLASS V.—Crosses of Native and Improved.

Best cow, over 3 years old,. $15 | Best heifer, 2 years old,.... $15
Second best,..... 10 | Second best,..... 10
Third best,.....vol. Trans. | Third best,.....vol. Trans.

CLASS VI.—Native Cattle.

Best cow, over 3 years old,. $15 | Best heifer, 2 years old,.... $15
Second best,..... 10 | Second best,..... 10
Third best,.....vol. Trans. | Third best,.....vol. Trans.

WORKING OXEN.

Best team of 20 yoke from any one county,..... $25 | Best 10 yoke of oxen from any one town,..... $20
Second best,..... 15 | Second best,..... 10
Best yoke of oxen,..... 15 | Third best,.....Colman's Tour.
Second best,..... 10
Third best,.....vol. Trans.

In awarding the premiums on working oxen, the single teams will be subjected to a trial on a loaded cart or wagon, under the direction of the committee; and particular reference will be had to the matching, training and docility of the animals as well as their general appearance.

THREE YEAR OLD STEERS.

Best yoke, ... $15 | Second best, ... $10
Third best. Diploma.

TWO-YEAR-OLD STEERS.

Best yoke, ... $10 | Second best,....Colman's Tour.
Third best, vol. Trans.

YEARLING STEERS.

Best yoke, ... $8 | Second best,....Colman's Tour
Third best, vol. Trans.

FAT CATTLE.

Best pair fat oxen,..... $15 | Second best, ... $10
Third best, Colman's Tour.
Best ox, cow, or heifer,.... $10 | Second best,..... $5
Third best, vol. Trans.

A fat ox taking a premium as one of a pair, cannot compete singly for another premium.

HORSES.

Best stallion, 4 years old,... $20 | Third best,.....Diploma.
Second best,..... 10 | Best gelding horse, ... $10
Third best,.....vol. Trans. | Second best,.....vol. Trans
Fourth best,.....Diploma. | Best breeding mare,..... $20
Best stallion, 3 years old,... $15 | Second best,..... 10
Second best,..... 10 | Third best,.....Diploma.
Third best,.....Diploma. | Best mare, 3 years old, ... $10
Best pair matched horses, .. $10 | Second best,..... vol. Trans.
Second best,.....2 vols. Trans. | Third best,.....Diploma.

The variety of horses which possesses size, strength and endurance for field labor, combined with that action which qualifies them for the carriage or saddle—in short, the "horse of all work"—is probably the most profitable class which our farmers can now engage in rearing; and to such, therefore, will the preference of the society be given. Horses taking premiums in pairs, cannot compete singly for the premium for geldings.

SHEEP.

CLASS I.—Long Wooled.

Best buck, ... $10 | Best five ewes,..... $10
Second best,....Colman's Tour. | Second best,....Colman's Tour.
Third best,.....Diploma. | Third best,.....Diploma.
Best pen 5 lambs, $5.

CLASS II.—Middle Wooled.

Best buck, ... $10 | Best five ewes,..... $10
Second best,....Colman's Tour. | Second best,....Colman's Tour.
Third best,.....Diploma. | Third best,.....Diploma.
Best pen 5 lambs, $5.

CLASS III.—Merinoes and their Grades.

Best buck,..... $10 | Best five ewes,..... $10
Second best,....Colman's Tour. | Second best,....Colman's Tour.
Third best,.....Diploma | Third best,.....Diploma.
Best pen 5 lambs, $5.

CLASS IV.—Saxons and their Grades.

Best buck, ... $10 | Best five ewes,..... $10
Second best,....Colman's Tour. | Second best,....Colman's Tour.
Third best,.....Diploma. | Third best,.....Diploma.
Best pen five lambs, $5.

Class I. is designed to include the Leicesters, Lincolns, Cotswolds, and all the varieties of sheep which furnish the quality of wool suitable for combing—Class II. includes the South-Down, Norfolk, Dorset, Native, &c.—and Classes III and IV, all those generally denominated Merinoes and Saxons, whether of pure or mixed bloods.

CLASS V.—Fat Sheep.

Best,..... $10 | Second best,....Colman's Tour.
Third best, vol. Trans.

Applicants for the premiums on fat cattle and sheep, must furnish statements of the manner of feeding the animals, and the kind, quantity and cost of the food.

SWINE.

Best boar, over 10 months,. $10 | Best sow,..... $10
Second best,....Colman's Tour. | Second best,....Colman's Tour.
Third best,.....Diploma. | Third best,.....Diploma.
Best lot of pigs under 10 months, not less than 4 in no. Col. Tour.
Second best, Diploma.

In awarding premiums on hogs, reference will be had not merely to size or present condition, but to that proportion between bone and meat which promises the greatest value from the least amount of feed.

POULTRY.

For the best lot of Dorking fowls, not less than 3, one cock and two hens..... $3 | For the best pair of ducks,... 3
For the best lot of Black Poland, not less than 3, ... 3 | " " " turkeys,. 3
For the best lot of large fowls not less than 3,..... 3 | " " " geese, .. 3
For the best and greatest variety of fowls, by any one individual,..... 10

VEGETABLES.

For 6 best stalks celery,.... $2 | 2 best purple egg plants, ... $1
3 best heads cauliflower,... 2 | Best half peck Lima beans,.. 1
3 best heads broccoli,..... 2 | Best " Windsor beans, 1
12 best white table turneps,. 1 | Best bunch double parsley,.. 1
12 best carrots,..... 1 | 3 best squashes,..... 1
12 best table beets,..... 1 | Largest pumpkin,..... 1
12 best parsneps,..... 1 | 12 best ears seed corn,..... 1
12 best onions,..... 1 | Best half peck table potatoes, 2
3 best heads of cabbage,.... 1 | Second best " " 1
12 best tomatoes,..... 1 | Best variety seedling " 5

Discretionary premiums will be awarded on choice garden products not enumerated above.

FARM IMPLEMENTS.

Best plow, ... $15
Second best,.....Silver Medal.
Third best,.....Diploma.
Best subsoil plow,..... $10
Best farm wagon,..... 10
Second best,..... vol. Trans.
Best half doz. hand rakes, ..Dip.
Best grain cradle,..... $3
Second best, ...Diploma.
Best half doz. hay forks, Diploma.
Best harrow,...Colman's Tour.
Second best,.....vol. Trans.
Third best,.....Diploma.
Best fanning mill, Silver Medal.
Second best,.....vol. Trans.
Third best,.....Diploma.
Best improved ox-yoke,. Col. T.
Second best,..... Diploma.
Best axe,..... $2
Best farm harness,.....– 10
Best saddle,..... 5
Best machine for cutting cornstalks, ... 5
Best horse power machine,. 10
Best cultivator,..Colman's Tour.
Second best,..... Diploma.
Best drill barrow,..Colman's T.
Second best,.....vol. Trans.
Best farm horse cart, .Col. Tour.
Best ox cart,....Colman's Tour.
Best horse rake,. Colman's Tour.
Second best,.....vol. Trans.
Best half doz. grass scythes, Dip.
Best " cradle " Dip.
Best " dung forks, ..Dip.
Best threshing machine,.... $10
Second best,.....vol. Trans.
Third best,.....Diploma.
Best straw cutter,..Silver Medal.
Second best,.....vol. Trans.
Third best,.....Diploma.
Best clover machine,..... $10
Second best,..... Diploma.
Best hoe,..... $2
Best flax and hemp dressing machine,..... $10

Articles not presenting any new and valuable improvements, will not be entitled to premiums. Implements and machines must be tested as far as possible, in the presence of the committee.

BUTTER.

For the best lot made from five cows, in 30 successive days—quality as well as quantity considered—25 lbs. of the butter to be exhibited, $25.

Second best,..... 15 | Third best,..... 10

Compliance with the following rules will be strictly required of those who compete for these premiums, viz: The cows to be fed on pasture, green corn-stalk fodder, or grass cut for the purpose, only. No grain, roots or slops of any description, to be fed during the trial, nor for 15 days preceding the trial. The cows to be owned by the competitors previous to the 1st day of April, 1845. The milk drawn from the cows on some one day during the trial, to be accurately weighed and measured, and the result stated. A sample of at least 25 lbs. of the butter so made to be exhibited at the Fair at Utica, for the inspection of the examining committee. The particular breed of the cows to be stated, if known, and the method of making and preserving the butter. A certificate signed by the owners of the cows, and at least one other person who assisted in milking and making the butter, detailing the above particulars, will be required.

The Executive Committee believe that few if any premiums offered on neat cattle will result in greater benefit to the farming interest, than those on the products of the dairy, providing fixed rules, requiring uniformity of feed, be faithfully enforced. The increased list of premiums is offered with the hope it will induce extensive competition throughout the state. Let this object be accomplished, and an opinion approximating to accuracy may be formed by the public which of the several breeds of cows are the best for dairy purposes, and from those that prove the best, further improvement may be made.

Best 25 lbs. made in June,.. $10 | Second best,.....Silver Medal.
Second best,....Colman's Tour. | Third best,..... do.
Third best,.....vol. Trans. | Fourth best,..... do.
Best 50 lbs. made at any time,$15 | Fifth best,..... do.

The claimants for premiums must state in writing the time when it was made; the number of cows kept on the farm; the mode of keeping; the treatment of the cream and milk before churning; the mode of churning, winter and summer; the method of freeing the butter from the milk; the quantity and kind of salt used; whether saltpetre or any other substances have been employed.

The butter offered for premiums must be presented in butter tubs, jars or firkins.

CHEESE.—Not less than 100 lbs.

One year old or over.

Best,..... $15 | Fourth best,.....Silver Medal.
Second best,.....Silver Medal. | Fifth do. ..... do.
Third do. ..... do.

Less than one year old.

Best,..... $15 | Fourth best,..... Silver Medal.
Second and Third, Silver Medals. | Fifth best,..... do.

Those who present cheese for the premiums offered, must state in writing the time when it was made; the number of cows kept; whether the cheese was made from one, two or more milkings; whether any addition is made of cream; the quantity and kind of salt used; the quantity of rennet used, and the mode of preparing it; the mode of pressure and the treatment of cheese afterwards.

MAPLE SUGAR.

Best 25 lbs.,..... $15 | Third best,....Colman's Tour.
Second best,..... 10 | Fourth best,..... Diploma.

CORNSTALK SUGAR.

For the best experiment in the manufacture of sugar from cornstalks, from one acre of northern corn cultivated for the purpose, so as to obtain the greatest quantity of sugar, $25.

The process of manufacture and clarifying must be particularly stated in reference to the maple and cornstalk sugar.

SILK.

Best specimen manufactu'd, $15 | Second best,....Colman's Tour.
Second best,..... 10 | Third best,.....Diploma.
Third best,..... Colman's Tour. | Best half bu. cocoons, 1845,. $10
Fourth best,.....vol. Trans. | Second best,....Colman's Tour.
Best pound reeled silk,..... $10 | Third best,.....Diploma.

DOMESTIC MANUFACTURES.

Best woollen blankets, $5—Second, 4—Third 3.
Best ten yards flannel, $5—Second, 4—Third, 3.
Best 10 yards woolen cloth, $5—Second, 4—Third, 3.
Best woolen carpet, $5—Second, 4—Third, 3.
Best tow cloth, 15 yards, $1—Second, diploma.
Best 10 yards linen, $5—Second, 4—Third, 3.
Best 10 yards linen diaper, $5—Second, 4—Third, 3.
Best hearth rug, $5—Second, 4—Third, 3—Fourth, 2—Fifth, 1—Sixth, Diploma.
Best 10 yards kersey, $3—Second best, 2—Third, 1.
Best rag carpet, 15 yards, $3—Second, 2—Third, 1.
Best double carpet coverlet, $4—Second, 3—Third, 2—Fourth, 1
Best pair woolen knit stockings, $2—Second, 1—Third, Diploma.
Best wove woolen stockings, $2—Second, 1—Third, Diploma.
Best cotton wove stockings, $2—Second, 1—Third, Diploma.
Best lb. of linen sewing thread, $2—Second, 1—Third, Dip.
Best linen woven stockings, $2—Second, 1—Third, Diploma.
Best linen knit stockings, $2—Second, 1—Third, Diploma.
Best knit cotton stockings, $2—Second, 1—Third, Diploma.

FRUITS

For the greatest variety of table apples, $5
For the second greatest,..... $3 | For the third greatest,..vol. Tr.
For the best twelve sorts, not less than three of each, $3.
Best new seedling apple, $3.
For the greatest variety of table pears, $3.
For the second greatest,..... Vol. Transactions.
For the greatest variety of winter pears,..... " "
For the best twelve Quinces,..... " "
For the best twelve peaches,..... " "
For the best twenty-four plums,..... " "
For the best six bunches of native graves,..... " "
For the best six bunches of foreign grapes,..... " "

FLOWERS.

For the greatest variety and quantity, Gold Medal.
For the second greatest, ... $5 | For the third greatest,...vol. Tr.
For the best Floral ornament, Silver Medal.
For the second best,..... $3 | For the best seedling Dahlia, $3
For the third best,...vol. Trans. | For the second best,..... 2
For the best twenty-five varieties of Dahlias, $5.
For the second best,..... $3 | For the third best,...vol. Trans

PLOWING MATCH.

First premium,..... $15 | Third premium, ... $10
Second do. ..... 12 | Fourth do. .....Colman's Tour.
Fifth, vol. Transactions.
For boys under 18 years of age.
First premium,..... $10 | Second,..... $5
Third, vol. Transactions.

Each competitor will be required to plow one-fourth of an acre of sward land in 75 minutes, the furrows not less than 10 inches wide and 6 deep—plowman to drive his team.

FIELD CROPS.—At Winter Meeting.

Best crop of wheat not less than two acres, $15.
Second best,..... $10 | Third best,.....2 vols. Trans
Best two acres of spring wheat, $15.
Second best,..... $10 | Third best,.....2 vols. Trans
Best crop of Indian corn, not less than two acres, $15.
Second best,..... $10 | Third best,.....2 vols. Trans
Best crop of barley, not less than two acres, $10.
Second best,..... $5 | Third best, ...vol. Trans
Best crop of rye not less than two acres, $10.
Second best,..... $5 | Third best,.....vol. Trans.
Best crop of oats, not less than two acres, $10.
Second best,..... $5 | Third best,.....vol. Trans.
Best crop of potatoes for table, not less than one acre, $10.
Second best,..... $5 | Third best,.....vol. Trans.
Best crop of potatoes, quantity considered, not less than 1 acre, $10.
Second best,..... $5 | Third best,.....vol. Trans.
Best crop of sugar beets, not less than half an acre, $10.
Second best,..... $5 | Third best,.....vol. Trans
Best crop of Mangel Wurzel, not less than half an acre, $10.
Second best,..... $5 | Third best,.....vol. Trans.
Best crop of Ruta Baga, not less than one acre, $10.
Second best,..... $5 | Third best,.....vol. Trans
Best crop of carrots, not less than one acre, $10.
Second best,..... $5 | Third best,.....vol. Trans.
Best crop of peas, not less than one acre, $10.
Second best,..... $5 | Third best,.....vol. Trans.
Best acre of corn for fodder, $5.
Best half acre of hops,..... $5 | Best half acre of tobacco,.... $5
Best " " flax,..... 5 | Best acre of cabbage,..... 5
Best acre of broom corn, $5.
Best acre of clover seed, $10.
Second best,....Colman's Tour. | Third best.....vol. Trans
Best acre of grass seed, $10.
Second best,....Colman's Tour. | Third best.....Diploma

Those who present claims to premiums for farm crops, must state in writing the following particulars:—The condtion of the soil at the commencement of cultivation for the crop; the previous crop and cultivation, and quantity of manure used upon it; the quantity and kind of manure the present season; the quantity and sort of seed used; the time and manner of sowing, cleaning and harvesting the crop; the amount of the crop determined by actual weight or measurement; and the expense of cultivation. The land shall be measured by some surveyor, who shall swear to the correctness of his survey, and that it was made with a chain and compass—and the claimant of the premium, with two other persons who assisted in mea

suring, shall certify under oath as to the quantity produced from the piece of land mentioned in the certificate of the surveyor—and a sample of grain shall be presented at the annual meeting with the oath of the applicant that that the same is a fair sample of the whole crop.

MISCELLANEOUS.

Wrought Iron Gate with cast iron pillars,..... $10
Best iron wheel barrow,.....Silver Medal.
Ornamental cast iron vase on pedestal,..... 8
Best sample drain tile,.....Silver Medal.
Best quarter of an acre ozier willow,..... 8

DISCRETIONARY PREMIUMS

Will be awarded for such implements, products, &c., not enumerated, as shall be deemed worthy of notice or encouragement.

REGULATIONS.

The premiums for Essays and Agricultural Implements, will be open to citizens of other states; all others will be confined to residents of this state, who are members of this society, or who may become so by the payment of one dollar on entering their articles.

The trial of plows will take place at Utica, on Tuesday, the 15th day of September.

No premiums will be paid on any animals or articles taken away before the close of the Fair.

Premiums not claimed within four months after they are awarded will be considered as donations to the Society.

All persons who intend to exhibit Cattle, Horses, Sheep or Swine, should give notice to THEODORE S. FAXON, Utica, or LUTHER TUCKER, Recording Secretary, Albany, previous to the 10th of September, that the necessary arrangements may be made for their accommodation—and all animals must be on the ground by 9 o'clock, A. M. of the 17th September.

All those who intend to compete for the premiums on agricultural implements, butter and cheese, sugar, cocoons, silk, &c. should have their specimens on the ground on the 16th, that they may be deposited in their appropriate places, and the rooms suitably arranged on the day previous to the Fair.

Applicants for premiums are requested to pay particular attention to the notes attached to the premiums on Fat Cattle and Fat Sheep, Butter and Cheeese, Field Crops, Maple Sugar, &c.

The statements required from those who compete for field crops, must be sent to LUTHER TUCKER, Recording Secretary, Albany, previous to the 1st of January, 1846, and the premiums will be awarded at the annual meeting of the society, on the third Wednesday of January.

Competitors for the premiums on Essays, must forward their manuscripts to the Rec. Secretary, Albany, previous to the 1st of January, 1846, free of postage.

No premium will be awarded, unless, in the opinion of the Judges of the Class in which it is offered, the animal or article is worthy of such premium.

Prize animals and implements at the previous exhibitions, will be allowed to compete for the prizes: but they must receive a higher prize, or in a different class, to entitle them to a premium. Should the same premium heretofore given them be awarded, they will receive a certificate to that effect, instead of the prize.

Animals and other articles offered for competition, must be labelled with the names and residence of the owners at full length.

No viewing committee, with the exception of the committee on Discretionary Premiums, shall award any discretionary premium, without the previous permission of the Executive Board, expressed through the President.

CONDENSED CORRESPON DENCE.

VIRGINIA.—Extract of a letter from our correspondent ZA. DRUMMOND, Esq., dated Amherst, Jan. 22:—"We have had but three snows this winter; one about three inches deep, and lying about three days; and the other two about one inch, and lying a few hours. Our plows have been in motion nearly all winter. Our wheat looks well, and grass is beginning to spring. Good land, lying well, four to five dollars. Richest kind of mountain land one dollar. The finest sheep walks in the world. What a fortune a yankee could make here. Come and see."

ITEMS.—Mr. Geo. L. Beckwith, of West Henrietta, Monroe county, informs us that the wheat crop in that neighborhood last year, was better in quantity and quality than it had been for several previous years. The *potatoe rot* made its appearance last season, and effected the crop to some extent, but did not do much damage.

Sweet and sour apple.—Mr. B. says he has two trees which produce this kind of fruit. The sour fruit resembles the Rhode Island Greening, &c.

Geology—Mr. B. says—"Some writers speak in glowing terms of the benefit the State works now publishing are to the farmer, but I can hardly understand this, if they are not placed where the farmer can obtain them, and at prices which he can afford to pay. Would not the State show its liberality, by placing a few copies in regularly organized public libraries in the different counties, or at least, deposit a few copies in some central places in each county, giving due notice thereof, that farmers may at least see what they are?"

TRIMMING GRAPE VINES.—Mr. Sidney Weller of Brinkleyville, North Carolina, has a vineyard of five or six acres, and makes eight to ten barrels of wine yearly. He thinks it best, for his location *not* to trim grape-vines after the first two or three years. He practices on this mode, and states that his vines produce abundantly. He keeps swine in his vineyard to eat the fallen fruit, and keep the ground clear of weeds and grass. He says—"I keep all clear underneath, from the first start of the vines, so as to leave a free passage for the wind, as well as for persons, and for the team used in scarifying the ground."

SUBSOIL PLOWING.—We give the following from a letter of H. W. S. C., Oatlands, N. J.—"As I think experiments which do not succeed are as deserving of record as those which do—in order that the public may see both sides of a question, I wish to inform you that I procured a subsoil plow last spring, and used it for three different crops, viz: corn, potatoes and barley. The corn was planted on a light sandy loam, the potatoes on a rich loam inclining to be clayey, and the barley on a rich mellow loam. One half of each field was subsoiled to the depth of eight inches, the other half having only an ordinary plowing. There was no perceptible difference in the appearance of either of the crops during the season of growth, and as the difference at harvesting, if any, was not enough for us to discover it by careful observation and comparison of portions of the field, I did not think it worth while to make an accurate measure of the whole of each division."

POMEGRANATE MELON.—A correspondent at Syracuse who signs "B," informs us that he obtained from Indiana last year, some seeds of a melon with this name. He gives the following description of it. He hopes to have seed to spare another year. "The seed is nearly the shape of a muskmelon, but smaller. The vines are nearly like the muskmelon. The fruit is round and about the size of a large orange, and is, when growing, dark and light green; when ripe, yellow, with irregular greenish spots and streaks presenting a beautiful fruit. The taste nearly like a muskmelon. I think them a very good fruit, but not particularly delicious, though some of my family and friends who tasted them liked them very much."

MELONS.—MR. L. DURAND, remarks in reference to the inquiry of "W." of Troy, given in a former number, that the variety of the muskmelon called the "citron," or as Mr. D. thinks it should more properly be called, the "pine-apple melon," is one of the richest of fruits, and is thought by some to resemble the pine-apple in taste. He says they grow from the size of a quart to a two-quart measure. Mr. D. kindly promises to send us a paper of seeds in the course of the winter.

RAPID GROWTH OF PIGS.—Extract of a letter from S. ROOT, Esq., Middlefield, Mass.—"Worcester Taylor of this town, slaughtered a pig just 10 months old, which weighed when dressed, 410 lbs.; several others have been killed, which weighed over 360 lbs., from 9 to 10 months old."

CLINTON CO. AG. SOCIETY—At the winter meeting of this Society, as we are informed, by Mr. WILLET KEESE, there were applications for premiums on wheat for crops varying from forty to forty-nine bushels to the acre—one of corn, over 100 bushels—one of potatoes, 496 bushels—which, says Mr. K., "will be considered not bad for this cold region."

CORTLAND COUNTY AGRICULTURAL SOCIETY.—Extract of a letter from P. BARBER, Homer:—"Our Agricultural Society held its annual meeting last week for the election of officers, &c. Rufus Boies of Cortlandville, President; George Chamberlain, Homer, Rec. Sec.; Paris Barber, Cor. Sec.; Amos Rice, Treasurer."

ONEIDA COUNTY AGRICULTURAL SOCIETY.—At the annual meeting of this society, on the 6th ult., the following gentlemen were elected officers for the ensuing year: Elon Comstock, Rome, President. Henry Rhodes, Trenton; John Townsend, Westmoreland; George L. Brigham, Augusta; Alanson S. Filer, Florence; Lewis Benedict, Vernon; Benjamin F. Jewett, New-Hartford;

Horace H. Eastman, Marshall; Lewis Eames, Lee; Horatio N. Cary, Marcy; and Philo Griswold, Vernon, V. Prest's. N. S. Wright, Vernon Centre, Cor., and B. N. Huntington, Rome, Rec. Sec'ys. Wm. Bristol, Utica, Treasurer. John S. Peckham, Utica; Hiram G. Everett, Kirkland; Ira Lillybridge, Annsville; A. S. Newberry, Sangerfield; and Ephraim Storrs, Trenton, Managers.

CONNECTICUT SEED LEAF TOBACCO SEED.

THE true broad and narrow Seed Leaf Tobacco Seed, selected from growth of 1844, for sale at the Seed Store of the Hartford County Agricultural Society, by E W. BULL, Seedsman.
Feb. 1—3t.

LOUISVILLE KY. SEED AND AGRICULTURAL STORE.

GEORGE, LAPPING & Co., keep constantly on hand
Kentucky Blue Grass, extra clean for Lawns.
Kentucky do. do. in strips,
Hemp seed,
Timothy,
Clover,
Orchard Grass,
Red Top.
All orders promptly attended to. MUNN & PETTIBONE,
206 Pearl St., N. Y., Agents.

SPLENDID FARM AND COUNTRY SEAT FOR SALE.

I NOW offer for sale my farm, consisting of 170 acres of the richest of the Mohawk Flats, all under improvement and in a highly productive state, together with the substantial and superbly finished brick mansion erected by the late Gen. John G. Weaver, at an expense of about $10,000. It is one and three-quarter miles from the city of Utica, on the north bank of the Mohawk, over a McAdam road. It has a beautiful orchard, garden, farm-house, barns, stables, sheds, &c., and is finely watered, and now stocked with choice Durham and grade cattle, Bakewell and Southdown Sheep, and all necessary farm implements; all of which will be sold at a great bargain to the purchaser. D. SKINNER.
Utica, January 1, 1845—3t*

HUSSEY'S REAPING MACHINE.

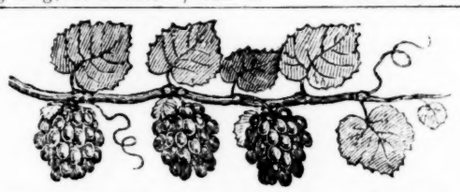
THE subscriber has now brought his Reaping Machine to the highest state of improvement. The cutting of four harvests has proved the last improvements to be permanent and durable. The four horse machine is warranted to cut from 15 to 20 acres per day—price, $170. The light two horse machine is warranted to cut from 12 to 15 acres per day—price $100 Medium size, price, $140. Farmers who intend getting machines to cut their next harvest, will please send their orders soon. References are given in the Dec. number of the Cultivator, 1844. Also for sale, my corn and cob crusher, an improved article; price 25 dollars. OBED HUSSEY.
Baltimore, Nov. 1844—4t*

FOR SALE.

THE splendid two years old Bull "Marius," belonging to Thomas Oliver Esq., of Riversdale, Sing Sing. Marius was imported in 1843 from the far famed stock of Earl Spencer, of Wiseton, Northamptonshire, and was subsequently exhibited at the State fair, held at Po'keepsie, in 1844, at which place he took the first premium of the yearlings in the short-horned class, as also that of the year olds against all classes then exhibited. Subsequently at the Fair of the American Institute last autumn, he was again awarded the first prize for the yearlings of his class. He is a Roan Bull of the most complete symmetry, and although only two years old on the 5th of last Dec., weighs about 20 cwt.

Pedigree—Marius, a Roan Bull—calved December 5th, 1842, got by Roman, dam by Waverly—gr. dam by Satalite—gr. g. dam by Cato—gr. g. g. dam by St. John—gr. g. g. g. dam by Chilton—gr. g. g. g. g. dam by the White Bull—gr. g. g. g. g. g. gr. dam by Favorite—gr. g. g. g. g. g. g. gr. dam by Duke. Signed, George Earl Spencer.

Letters, post paid, may be addressed to the subscriber.
Sing-Sing, N. Y. Jan. 28, 1845.—tf. JOHN LUMSDEN.



ISABELLA GRAPES, of proper age for forming Vineyards, propagated from and containing all the good qualities which the most improved cultivation for over ten years has conferred on the Vineyards at Croton Point, are now offered to the public. Those who may purchase will receive such instructions as will enable them to cultivate the Grape with entire success, (provided their location is not too far North.) All communications, post paid addressed to R. T. UNDERHILL, M. D., 400 Broadway, New York, will receive attention. He feels quite confident that he has so far meliorated the character and habits of the Grape Vines in his Vineyards and Nurseries, by improved cultivation, pruning, &c., that they will generally ripen well and produce good fruit when planted in most of the Northern, and all the Western, Middle and Southern States.
January 20.—2t.

AMERICAN Farmers Encyclopedia, price $4—Skinner's Cattle Doctor, price 50 cents, and a variety of other works, for sale at the office of "The Cultivator."

BOMMER'S METHOD AT REDUCED PRICES.

THE cheapness and expedition, by which manure may be manufactured with the Bommer process, and the various substances to which it may be successfully and advantageously applied, render it a valuable acquisition to every farmer that will adopt it. To facilitate its general introduction, it is proposed to sell the method uniformly at five dollars. Any individual shall be promptly furnished with a copy of the method without charge of postage, who shall remit the cash by mail to the general agent. It is intended to employ a competent travelling agent, as soon as practicable, in each county. My general agency includes the States of New-York, New Jersey, Virginia, Delaware, Connecticut, Rhode Island, Massachusetts, New Hampshire, Maine and Vermont.

ONE HUNDRED AGENTS WANTED.

Wanted immediately, 100 active, intelligent and enterprising men to engage as travelling agents in the above mentioned States. Unquestionable testimonials will be required; and responsible securities will be expected, as guarantees, for the faithful discharge of the duties of the appointment. Persons of suitable qualifications, will find this both a useful and lucrative employment. Applications, if by mail, should be post paid and directed to me, at Westville, New Haven Co. Connecticut. ELI BARNETT, General Agent.
Westville, March 1, 1845.

FARMS FOR SALE.

THE farm in West Groton, known as 60 acres in the North East corner of Lot No. 63 Locke, consisting of a farm house nearly new, barn, and about 40 acres of improvement surrounded by a good fence, and now occupied by Robert Armstrong. Price, $1,500. One thousand dollars can remain on mortgage for ten years, at legal interest, half yearly.

ALSO—The farm known as the State 100 acres in the South East corner of Lot No. 2, Cicero, about a mile from the town of Brewerton, on the outlet of Oneida Lake, consisting of an improvement of 40 acres fenced, with log buildings, and sixty acres of woodlands.

ALSO—The farm known as the State 100 acres in the South East corner of Lot No. 54 Hannibal, a short distance from the town of Fulton, on the Oswego river, a good woodland, with a small clearing.

ALSO—The wood lot known as the State 100 acres in the South East corner of lot No. 5 Manlius, a few miles from Syracuse, and in a good neighborhood.

ALSO,

Wood lot known as the S		100	ac. in the	S E. c. of lot	No. 7	Solon
do	do do	do	do	do	19	do
do	do Survey	50	acres do	do	25	do
do	do do	50	do do	do	29	do
do	do do	50	do N. W.	do	36	do
do	do do	50	do N. E.	do	39	do
do	do do	50	do S. E.	do	58	do
do	do Sub 1	83	do	of lot	76	do
do	do do 7	30	do	do	76	do
do	do Survey	50	do N. W	do	98	do
do	do State	100	do S. E.	do	65	Virgil
do	do Survey	50	do N. E.	do	68	do
do	do Survey	50	do N. W.	do	69	do

Apply to JAS. L. BRINCKERHOFF,
March 1, 1845—6t No. 32 Leight-street, New-York.

FINE FARMS FOR SALE AT AUCTION.

THE property known as the Stimson Farm, situated at Galway in the county of Saratoga and State of New-York, will be sold at auction, at the Court House in Ballston Spa, on Wednesday the second day of April next, at 12 o'clock noon. It contains in the whole about 325 acres and is so divided as to make three farms, each having on it the necessary farming buildings. The roads from Schenectady to the Fish House, and from Saratoga and Ballston to Johnstown, run through the property at right angles, dividing it into four parts. The two pieces lying north of the road, said to contain about 190 acres, will be sold together. On this part are, a large hotel, capable of accommodating one hundred boarders, with the most extensive and convenient buildings for agricultural purposes. It is a favorite place of resort for families in the summer season. This part of the property will be a most desirable investment for any person desiring to connect the business of farming with that of keeping a hotel of this description.

The south eastern portion, said to contain about 90 acres, has a farm house and the necessary out buildings, with a wagon maker's and a blacksmith's shop. The south-western portion, said to contain about 50 acres, has on it a store and dwelling-house attached, farm house and barns, and is a most desirable property for any person wishing a small farm. Each farm has on it the proper proportion of woodland, and the whole is of the best quality for farming, there being no waste land, and in the highest state of cultivation. The situation is high, commanding a most beautiful and extensive prospect in all directions.

The sale will be positive and without reserve, to the highest bidder, and perfect titles will be given. The terms will be 5 per cent cash, to be paid to the auctioneer at the time of sale; 50 per cent may remain on bond and mortgage for five years, or a longer term, at 6 per cent interest, payable half yearly in the city of New-York, on the first of May and November, and the balance to be paid in cash on the delivery of the deed. For further particulars, apply to JOHN W. THOMPSON, Esq., Ballston Spa, or to J. OAKLEY, No. 77 Nassau-street, New-York.
Dated New-York, Dec. 9, 1844—3t.

FARM IN ILLINOIS.

FOR SALE—A good farm, with valuable improvements. The subscriber being about changing his business, will sell a great bargain. Also has in immediate vicinity, 2,000 acres choice land, which he will sell at a discount from government price. Address ISAAC HINKLEY, P. M., Audubon, Montgomery Co., Illinois.
Dec. 1, 1844—tf.

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AGRICULTURAL AND BUSINESS AGENCY.

KNOWING the convenience that such an Agency will be to his distant friends, the subscriber offers his services for the purchase of Match and Single Horses, Cattle, Sheep, &c.

Wagons, Carts, and Carriages.

Plows, Cultivators, Harrows, Rollers, Corn-Shellers, Corn and Cob Grinders, Threshing Machines, Grain Reapers, Horse Power, and all other agricultural implements.

Seeds and Merchandise of every kind.

Manures.—Peruvian and African Guano, Ground Plaster, Ground Bones, Oyster Shell and Stone Lime.

Agricultural and other books.

From his long experience as a farmer and stock breeder, and general acquaintance with business, the subscriber trusts that he shall be able to give satisfaction. The commission charged for his services in purchasing or selling, will be moderate. Cash or produce must invariably be in hand, before orders can be executed.

Feb. 18, 1845—3t. A. B. ALLEN, 205 Broadway, New-York.

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CATECHISM of Agricultural Chemistry and Geology, by James F. W. Johnston, M. A. F. R. S. S., L. & E. with an Introduction by John Pitkin Norton of Farmington, Ct., from the 8th English edition with notes and additions by the author, prepared expressly for this edition.

N. B.—The above work, first published a year ago, has already gone through eight large editions, and is now used in 3,000 schools in Ireland, and nearly all the schools in Scotland. The present edition, improved from the eighth, and adapted to this country is now ready—price 18¾ cents. A liberal discount allowed to the trade. All orders promptly attended to

ERASTUS H. PEASE,
Albany, March 1, 1845. Publisher, 82 State-street.

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THE proprietor is now receiving from his seed growers, a full and complete assortment of American Garden Seeds, all of which are selected with care, being grown from the best varieties of vegetables to be found in the country; also European seeds, plants and flower seeds from the best establishments in Europe and America.

Fruit trees of all the choicest kinds furnished to order at the lowest market prices, and warranted true as represented. Agricultural and horticultural implements of American and European manufacture. Also, Root-Slicers, Corn-Shellers, Straw-Cutters, &c. Those who wish to purchase or examine are respectfully invited to call.

W. THORBURN, Seedsman & Florist.
March 1, 1846—3 t. corner of Broadway and Maiden Lane.

HEDGES.

THE subscribers offer for sale 30,000 Osage Orange, (Maclura,) one year old, strong thrifty plants, admirably adapted for hedging. Price, ten dollars per thousand. Address post-paid,

D. LANDRETH & FULTON,
Philadelphia, March 1—1t. Nurserymen and Florists.

SILK WORM EGGS.

SIXTEEN ounces of the best Lombardy silk worm eggs on cloths, received lately from Italy, in good order. Arrangements will be made for sale of the whole or part, by applying early or by letter post-paid, to G. W. HAYWOOD, & Co.
New-York, March 1, 1845. 38 Beaver street.

SEED STORE AND AGRICULTURAL WARE-HOUSE.

OUR Spring supply of seeds is now ready, and we shall be happy to receive orders for Field or Garden Seeds, of every description, Black Sea, Italian and Siberian Spring Wheat, Barley, Peas, Clover Seed, Timothy Seed, Seed Corn, Shaker and other Garden seeds, &c. Also, a full assortment of farming tools selected from the best manufacturers in the country. Hoes, Scythes, Forks, &c. cheap by the dozen. E. COMSTOCK.
Rome, Oneida county, March 1, 1845.

SPRING WHEAT.

THE subscriber has for sale, an excellent sample of Italian Spring Wheat. The original seed was obtained by him many years ago. It has therefore become perfectly acclimated, and great care having been taken to always save the best and heaviest for sowing, it has much improved, both in weight and productiveness. The price is $2 per bushel. A sample may be seen at the Cultivator office.
Guilderland, Feb. 1845 WILLIAM MERRIFIELD.

ROME PLOW FACTORY.

THE DIAMOND PLOW which received the first premium at the State Fair at Poughkeepsie, as well as at every County Fair where it has been shown, is manufactured by the subscribers in the very best style, and for sale at wholesale or retail. Also, some eight or ten patterns of approved plans, as well as Scrapers, Cultivators, Cradles, Mott's Agricultural Furnaces, &c. Orders from abroad promptly filled, and a liberal discount to dealers.
March 1, 1845. BRAINERD & COMSTOCK.
Rome, Oneida county.

WARREN'S IMPROVED PORTABLE HORSE POWER AND THRESHING MACHINES.

THE principle of these celebrated Machines is admitted to be correct and superior to any others: and the important improvements now completed in their construction, entitles them to the fullest confidence of agriculturists, while their price brings them within the means of all farmers, as increasing demands prove.

Prices of one horse power and thresher together, $60—two horse power and thresher together, $75—four horse power and thresher together, $110. Leather bands, $4 and $5.

Orders for any number will be promptly met this season on the usual terms—payment on delivery in this city in cash or approved paper. H. BARTLETT & Co.
Successors to L. Bostwick & Co.
March 1—1t. 146 Front-street, New-York.

FARM AND VILLA AT AUCTION.

INTENDING to change my residence, I will, on Tuesday the 18th day of March, (unless previously disposed of at private sale,) sell at public auction on the premises, my present mansion, situated one mile from the city of Troy, consisting of a new and substantial brick cottage, containing eleven rooms, finished in a chaste style, but in the very best manner; stable and carriage-house, ice-house, &c., with 15 acres of land; an orchard just beginning to bear, and a garden furnished with choice shrubbery in full bearing. The surrounding landscape is highly picturesque and beautiful.

Also, a farm adjoining, containing 87 acres excellent land, well watered, and suitable for any agricultural purpose, but especially for the milk business. There are on it 3 dwellings, 2 of them built in 1840—2 barns, with stables and sheds for stock.

Also, the stock and farming utensils, and most of the furniture of the house.

Those wishing to purchase, are respectfully invited to call and view the premises, when the terms of payment and other particulars of the sale will be made known. A. D. SPOOR.
Brunswick Place, March 1, 1845—1t*

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THE subscriber offers for sale his fine Durham bull Osceola. He is now two years and a half old, and has taken the 1st premium at two successive State Fairs; for pedigree and further description, see Cultivator, Sept. 1843.

Also, his thorough bred Stallion Young Florizel.
Watervliet, Dec. 16, 1844—tf. CLARKSON F. CROSBY.

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